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PB-22 AUTOMATED DATA SYSTEM(U) GENERAL-RESEARCH CORP

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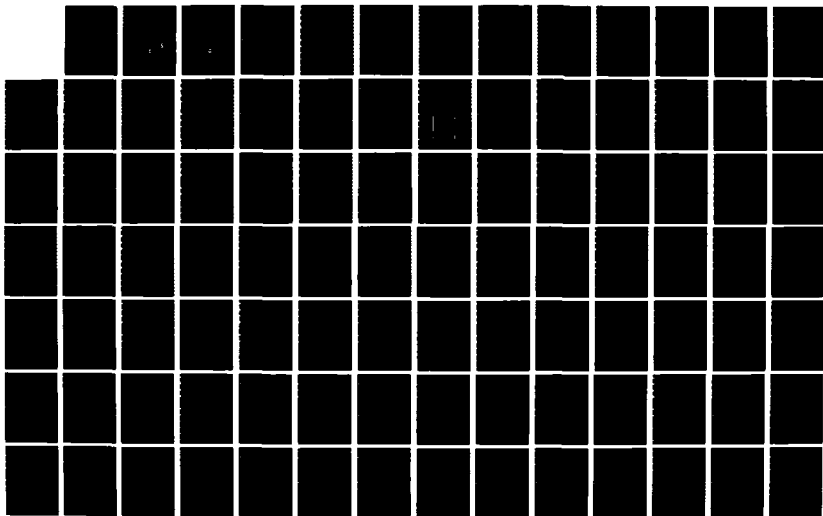
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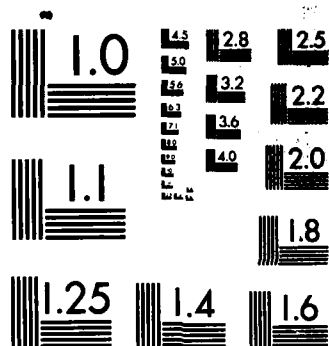
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PB-22 Automated Data System

AD-A166 039

Functional Description

By:

Robert L. Schroeder, Project Manager
Larry E. Bradley
Einar (Bill) Berge
Keith B. Wolff
William E. Bartlett

7 October 1983

Contract Number MDA903-83-M-7399
Item No. 0001AB

MANAGEMENT TECHNOLOGIES DIVISION

**GENERAL
RESEARCH**



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Office of the Comptroller of the Army
(Operations and Maintenance)
Program Budget Division
Attn: Mrs. Jean S. Rogers
Room 3B666, the Pentagon
Washington, DC 20310

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RESEARCH**  **CORPORATION**

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7655 Old Springhouse Road, McLean, Virginia 22102**

Submitted To:

**Office of the Comptroller of the Army
(Operations and Maintenance)
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SECTION 1

GENERAL

1.1 Purpose of the Functional Description

This Functional Description (FD) for "Automation of the Army Budget Activities for Civilian Personnel" (Contract Number MDA903-83-M-7399, 16 August 1983) is written to provide:

- The Program Budget (PB)-22 portion of the Army budget system requirements which must be satisfied to serve as a basis for mutual understanding between the user and the developer;
- A description of the sources of data for the Army Management Headquarters Activities (AMHA) PB-22 Budget Exhibit, *and*
- A basis for development of automated procedures to display, access, and update the PB-22 Budget Exhibits through remote entry devices and computer interfaces.

1.2 Project References

This FD is the third, and last, which will be prepared by the General Research Corporation (GRC) under the terms of the performance schedule required by the contract referred to above.

The first FD described a basis for development of an automated system for preparation of the Operating Program (OP)-32 Budget Exhibit - a system that will provide a responsive, timely method for generation of civilian personnel cost data in a format ready for budget submission.

The second FD provided a description for a P/BS FORDIMS interface to the OP-32 Budget Exhibit Automated System.

This FD will identify and describe the sources of data for preparation of the AMHA PB-22 Budget Exhibit, and will document the procedures for input and output of manpower and cost data via hard copy and CRT displays.

The Project Sponsor is the Comptroller of the Army (COA); the Contracting Agency is the Defense Supply Service-Washington (DSS-W); the Contracting Officer's Representative (COR) is Mrs. Jean S. Rogers. The primary user of the automated system will be the Office of the Comptroller of the Army (OCA). The operating support center of the system will be the United States Army Management System Support Agency (USAMSSA).

A copy of the unsolicited proposal submitted by GRC to OCA, which led to award of the contract identified above is at Appendix A. A copy of the Statement of Work, required deliverables, and performance schedule required by the contract is at Appendix B.

1.2.1 Contractual Documents

- a. Proposal entitled "Functional Descriptions for Automation of the Army Budget Activities for Civilian Personnel," General Research Corporation, McLean, Virginia, 3 March 1983.
- b. Procurement for "Functional Description for Automation of the Army Budget Activities for Civilian Personnel," Contract Number MDA903-83-M-7399, DSS-W, 16 August 1983.
- c. Functional Description for an OP-32 Automated Data System, Contract Number MDA903-83-M-7399, (Item 0001AA) General Research Corporation, 6 September 1983.
- d. Functional Description for a P/BS FORDIMS Interface to the OP-32 Budget Exhibit Automated System, Contract Number MDA903-83-M-7399, (Item 0001AC), General Research Corporation, 7 October 1983.

1.2.2 Reference Documentation

- a. DOD Directive 5100.73, "DOD Management Headquarters and Headquarters Support," 12 March 1981.
- b. Department of Defense Standard 7935 (DOD-STD-7935), 15 February 1983.
- c. OMB Circular A-11, Subject: "Preparation and Submission of Budget Activities," July 1983.

- d. DOD Budget Guidance Manual, DOD 7110-1-M.
- e. Memorandum, OSD, Subject: "FY 1984 Revised and 1985 Budget Estimates Guidance," July 1983.
- f. AR 10-5, Organization and Functions, Department of the Army.
- g. AR 18-1, Army Automation Management.
- h. AR 37-15, Budget Development and Review.
- i. AR 37-100, Account/Code Structure, Financial Administration.
- j. AR 37-100-XX, The Army Management Structure.
- k. AR 570-4, Manpower Management, Manpower and Equipment Control.
- l. AR 570-8, Army Management Headquarters Activities (AMHA).
- m. CSR 5-3, Management of the FORDIMS.
- n. CSR 10-23, Organization and Functions, Office of the Comptroller of the Army.
- o. CSR 11-6, Army Programs, Program and Budget Guidance.
- p. CSR 11-7, Staff Responsibilities for the Army Management Structure Code Data Base.
- q. CSR 15-1, Boards, Commissions, and Committees, Program and Budget Committee.
- r. CSR 18-11, Force Development Management Information System.
- s. CSR 37-4, Financial Administration, Army Staff Budget Responsibilities.
- t. CSR 570-5, Determination and Presentation of Civilian Manpower Requirements.
- u. Memorandum 18-4, HQDA Subject: Automatic Data Processing Support from the USAMSSA, 18 March 1976.
- v. Letter DACA-BUF, HQDA, Subject: "Department of the Army Budget Directive, 5 July 1983.
- w. Volume I, FORDIMS User's Guide, August 1980.
- x. Volume II, FORDIMS User's Guide, November 1980.

1.3 Abbreviations and Acronyms

The definitions of abbreviations and acronyms used in this document are listed in Appendix C.

SECTION 2

SYSTEM SUMMARY

This section provides a general description of the existing methods, sources of data, and procedures used to prepare the PB-22 Budget Exhibit; objectives of an automated method to prepare the exhibit; existing and proposed methods and procedures; and assumptions and constraints impacting development and operation of the system.

2.1. Background

2.1.1 Army Management Headquarters Activities

The PB-22 Budget Exhibit displays manpower and cost data relating to the operations of AMHA which are a grouping of non-tactical headquarters and staff support organizations. A listing of AMHA showing their Program Element Code (PECOD), Army Management Structure Code (AMSCO), Unit Identification Code (UIC), Title, Function Category (FNCAT), and Resource Command (RCOMD) is at Appendix D.

Non-tactical headquarters and staff support organizations (optional) are designated AMHA when their primary management responsibilities include providing oversight, direction, and control through:

- Policy development and/or guidance
- Long-range planning, programming, and budgeting
- Management and distribution of resources
- Review and evaluation of program performance.

The staff support organizations are organizational elements, or units, of Headquarters, Department of the Army (HQDA) and Army Commands, the primary mission of which is to provide direct support to a management headquarters in any of the functional areas listed in Appendix B, AR 570-8, Army Management Headquarters Activities (AMHA).

HQDA exercises centralized control of the size and composition of AMHA. The resources allocated to AMHA are maintained at austere levels through consolidation of functions, elimination of marginal activities, and organizational structuring. The Deputy Chief of Staff for Personnel (DCSPER), Department of the Army (DA), is the manager and coordinator for all matters relating to AMHA.

2.1.2 The PB-22 Budget Exhibit

The PB-22 Budget Exhibit displays manpower and cost data relating to the operations of AMHA. This includes: (1) manpower force structure allowance (FSA) and (2) workyears for military and civilian end-strength (ES) and workyears (WY) and direct and reimbursable obligations for headquarters staffs and staff support organizations, as defined in AR 570-8.

The PB-22 Budget Exhibit is required by DOD Budget Guidance Manual 7110-1-M. The Exhibit is prepared by the Program Budget Division, Operations and Maintenance, Army, Directorate, Office of the Comptroller of the Army (DACA-OMP), and the Allocation and Documentation Division, Office, Deputy Chief of Staff for Personnel (DAPE-MBA).

2.1.3 Preparation of the PB-22 Budget Exhibit

The format of the PB-22 Budget Exhibit is shown in Figure 2.1. The dollar entries in the exhibit are in thousands; strength is in whole numbers. The portions of PB-22 with which this FD is concerned are explained below. (The explanation of entries is keyed to the numbers in parenthesis following the title of the field shown on the PB-22 format.)

- (1) FY 19PY (Actual) and FYCY and FYBY (Estimates) - The appropriate fiscal year is indicated in this line/column heading. The prior year, shown as 19PY, will display "FY 19PY Estimate" for the OSD Budget and "FY 19PY Actual" for the President's budget. The FY 19CY will show the estimate for the current fiscal year which is the latest year for which there is an approved budget. The 19BY shows estimated

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(DOLLARS IN THOUSANDS, STRENGTHS IN WHOLE NUMBERS)

Category/Organization/ Appropriation (2)	FY 19PY Actual (1)			FY 19CY Estimate (1)			FY 19BY Estimate (1)		
	Military End Strength (3)	Civilian Work Years (4)	Total Obligation (\$ 000) (5)	Military End Strength (3)	Civilian Work Years (4)	Total Obligation (\$ 000) (5)	Military End Strength (3)	Civilian Work Years (4)	Total Obligation (\$ 000) (5)
1. Army Management HQ (7)									
a. Departmental (8)									
MPA									
OMA									
Dir									
Reim									
(DS) (9)									
MPA									
OMA									
Dir									
Reim									
OSA (10)									
MPA									
OMA									
Dir									
Reim									
b. Major Commands (8)									
MPA									
OMA									
Dir									
Reim									
FORSCOM (11)									

Figure 2.1. PB-22 Budget Exhibit Format

amounts for the year for which the budget is being prepared. For example, for the 1985 fiscal year budget request, 19PY is for the prior year, 1983; 19CY is the current year 1984; and 19BY is for the budget year, 1985.

- (2) Category/Organization/Appropriation - The activity for which strengths and costs are being reported is recorded in this field. The entries under this field are explained below. Table 2.1 lists groupings by category and organization.
- (3) Military End Strength - The FSA of military personnel performing AMHA duties are recorded in this column for the end of each FY.
- (4) Civilian End Strength - This column shows the total number of civilian spaces authorized for performing AMHA duties at the end of each FY.
- (5) Civilian Workyears - This column shows the total civilian workyears devoted to AMHA for each FY.
- (6) Total Obligation (\$000) - The total dollar obligations associated with military and/or civilian AMHA functions are shown in this column. For the military effort, only military pay is reflected. For the civilian effort all obligations, personnel, and other than personnel, are shown.
- (7) Army Management Headquarters - Is the first of three major divisions of the PB-22 report. Army Management Headquarters contains all commands and activities which are solely under HQDA Control. These commands and activities are further subdivided as explained in (8) below. The second major division is Unified/Specified Commands which contain United States (U.S.) commands and activities that involve more than one U.S. military service. Each command is listed separately

TABLE 2.1
CATEGORY AND COMMAND/ACTIVITIES BY PB-22 GROUPING

I. Army Management Headquarters Activities include the commands and activities that comprise the following seven groupings of activity which are identified in the PB-22 Budget Exhibit. The groupings are indicated by a capital letter which corresponds to the lower case letter groupings in paragraph 1 of the PB-22 exhibit.

A. Departmental

OSA - Office of the Secretary of the Army
 Army Staff

B. Major Commands (MACOM)

USA COE - US Army Corps of Engineers
 DARCOM - US Army Materiel Development and Readiness Command
 INSCOM - US Army Intelligence and Security Command
 HSC - US Army Health Services Command
 MDW - US Army Military District of Washington
 ACC - US Army Communications Command
 TRADOC - US Army Training and Doctrine Command
 FORSCOM - US Army Forces Command
 CIDC - US Army Criminal Investigation Command
 MTMC - Military Traffic Management Command
 USAREC - US Army Recruiting Command

C. CONUS Armies

First Army	Fourth Army	Sixth Army
Second Army	Fifth Army	

D. US Army Mid-management Commands

ARRCOM - Armament Materiel Readiness Command
 ARRADCOM - Armament Research and Development Command
 AVRADCOM - Aviation Research and Development Command
 CERCOM - Communications and Electronics Materiel Readiness Command

TABLE 2.1 (Cont.)
CATEGORY AND COMMAND/ACTIVITIES BY PB-22 GROUPING

D. Cont.

CORADCOM - Communications Research and Development Command
 DESCOM - Depot Systems Command
 ERADCOM - Electronic Research and Development Command
 MICOM - Missile Command
 TACOM - Tank Automotive Command
 TSARCOM - Troop Support and Aviation Materiel Readiness
 Command

E. MACOM (O'seas)

USAREUR - US Army Europe
 USAEIGHT - Eighth US Army
 USARJ/IX Corps - US Army Japan
 WESTCOM - US Army Western Command

F. Sub-MACOM (CONUS)

7th Sig Cmd - 7th Signal Command

G. Sub-MACOM (O'seas)

SETAF - US Army Southern European Task Force
 5th Sig Cmd - 5th Signal Command
 ACC-WESTCOM - Army Communications Command-Western Command

II. The Unified and Specified Commands are:

HQ LANTCOM (Atlantic Command)
 US Forces Azores
 Iceland Defense Forces
 Antilles Defense Forces
 HQ EUCOM (European Command)
 HQ PACOM (Pacific Command)
 HQ USARJ (US Army Japan)
 HQ SOUTHCOM (Southern Command)
 HQ REDCOM (Readiness Command)

TABLE 2.1 (Cont.)

CATEGORY AND COMMAND/ACTIVITIES BY PB-22 GROUPING

III. International Military Headquarters/Activities are:

SACLANT	- Supreme Allied Commander, Atlantic
SHAPE	- Supreme Headquarters, Allied Powers Europe
IBERLANT	- Iberian Atlantic Command
Intl Mil Actvs	- International Military Activities
NATO Intel Staff	- North Atlantic Treaty Organization Intelligence Staff
LANDSOUTHEAST	- Allied Land Forces, Southeastern Europe
HQ NORAD/CONRAD	- Headquarters North American Air Defense Command
HQ USFK/EUSA	- Headquarters, US Forces Korea/Eighth US Army
AFSOUTH	- Allied Forces, Southern Europe
AFNORTH	- Allied Forces, Northern Europe
CENTO	- Central Treaty Organization
NORTHERN ARMY GP EL	- Northern Army Group Element

with a total calculated for the major heading. The third major division is International Military Headquarters which includes commands and activities staffed by military and civilian personnel from the U.S. and other countries. Each command or activity is listed and a total is calculated for the major heading.

- (8) Departmental - Is one of the seven groupings of commands and activities under the Army Management Headquarters paragraph. Each of these subparagraphs lists the commands or activities contained in that respective grouping. Each command or activity listing will show obligations for command or activity mission functions and support functions by appropriation, such as Military Personnel, Army (MPA) shown in the example, and Direct (Dir) and Reimbursable (Reim) for civilian personnel and other obligations. The sum of Dir and Reim strengths and obligations is shown on the appropriation line directly above the Dir and Reim entries. All appropriations supporting a listed command or activity are listed individually, e.g., MPA, OMA, and OMAR. A complete list of the seven groups with respective commands and activities are at Table 2.1.
- (9) DS - This acronym indicates Departmental Support and indicates the effort performed for AMHA in support of the department or command/activity. The acronym SSA, indicating Staff Support Activity or Agency, will be used at major command and below.
- (10) OSA - This indicates Office of the Secretary of the Army and shows the further subdivision of Department. The other subdivision, as shown in Table 2.1, is the Army staff. The total of strengths and obligations for all appropriations supporting the activity will be shown on this line.

- (11) FORSCOM (US Army Forces Command) - Is an example for listing the commands/ activities within the Major Commands subparagraph. Other commands/activities are listed in Table 2.1. As in (10) above, the totals for all appropriations within the command will be shown on this line.

2.2 Objective

The objective of the Automated Data System (ADS) described in this FD is to produce the PB-22 Budget Exhibit which DACA-OMP is required to develop for the OSD and President's Budgets. Specific objectives are to:

- a. 1) Receive and store data input by DACA-OMP through a remote terminal.
- b. 2) Retrieve information and data stored in the Program/Budget Subsystem (P/BS) and Planning Programming, Budgeting, and Execution System (PPBES) data bases.
- c. 3) Retrieve information and data stored in the Command Operating Budget (COB) data base when that system is completely automated,
- d. 4) Manipulate available data into the format required for display in PB-22 budget exhibit.
- e. 5) Produce the PB-22 Budget Exhibit in hard copy and on transportable tape suitable for submission to OSD, *and*
- f. 6) Provide workpapers and audit trails of processed data in prescribed formats.

2.3 Existing Methods and Procedures

The existing methods and procedures used in preparing the PB-22 Budget Exhibit are primarily manual, although automated reports are used as the source of data. These manual procedures are time-consuming and subject to human error because many similar values are used from a large number of data fields. DACA-OMP requires approximately six person-weeks to assemble, record, and type the data into worksheets and prepare the final exhibit. In addition, one person in the Allocation and Documentation Division, Office of the Deputy Chief of Staff For Personnel (ODCSPER) [DAPE-MBA] spends five days extracting information from an

automated P/BS report and preparing worksheets. These manual procedures involve repetitive processes (to record and add numbers) which are suitable for computerized operations. More importantly, they consume valuable analysis and decision time of professionals who should be available to perform analysis and evaluations of budget proposals and to develop guidance necessary for support of Army operations. The flow diagram in Figure 2.2 depicts the existing procedures which are explained below. The explanation is keyed to the numbers in circles below the respective boxes.

Block 1 - The Allocation and Documentation Division, ODCSPER (DAPE-MBA), prepares an AMHA worksheet, shown in Figure 2.3, that depicts civilian and military strengths by FY for each command by Army Management Structure Code (AMSCO). DAPE-MBA sends a copy of the worksheet to DAPE-MBB and one copy to DACA-OMP. The data for the worksheet are derived from a Manpower Resource Guidance Report (RKSF215Y) using the P/BS live file as a source. The report, produced by Resource Command (RCOMD), shows obligations for each AMSCO used by the RCOMD. A sample copy of one of the pages of the report is at Figure 2.4.

Block 2 - DAPE-MBB uses the DAPE-MBA worksheet to determine military personnel costs by command which are forwarded in turn to DACA-OMP. Although these military personnel costs are in the PPBES data base, their use has not been automated and the calculations and use of these costs are performed manually in preparing the PB-22 Budget Exhibit.

Block 3 - Each Major Command or Agency prepares and forwards to HQDA a COB. Schedules 16A (Army Management Headquarters (AMHA) Costs and Manpower Data), and 16B, (Command Requested Changes by Financing and Manpower (AMHA)), depicts the manpower and costs devoted to AMHA. DAPE-MBA reviews the Schedule 16B and approves or disapproves the requested AMHA manpower changes. If changes are approved, DAPE-MBA generates a P/BS manpower ACTNO and notifies DACA-OMP of the approval. DACA-OMP extracts the other-than-personnel obligations from Part II of Schedule 16A and from the approved changes in Schedule 16B. This

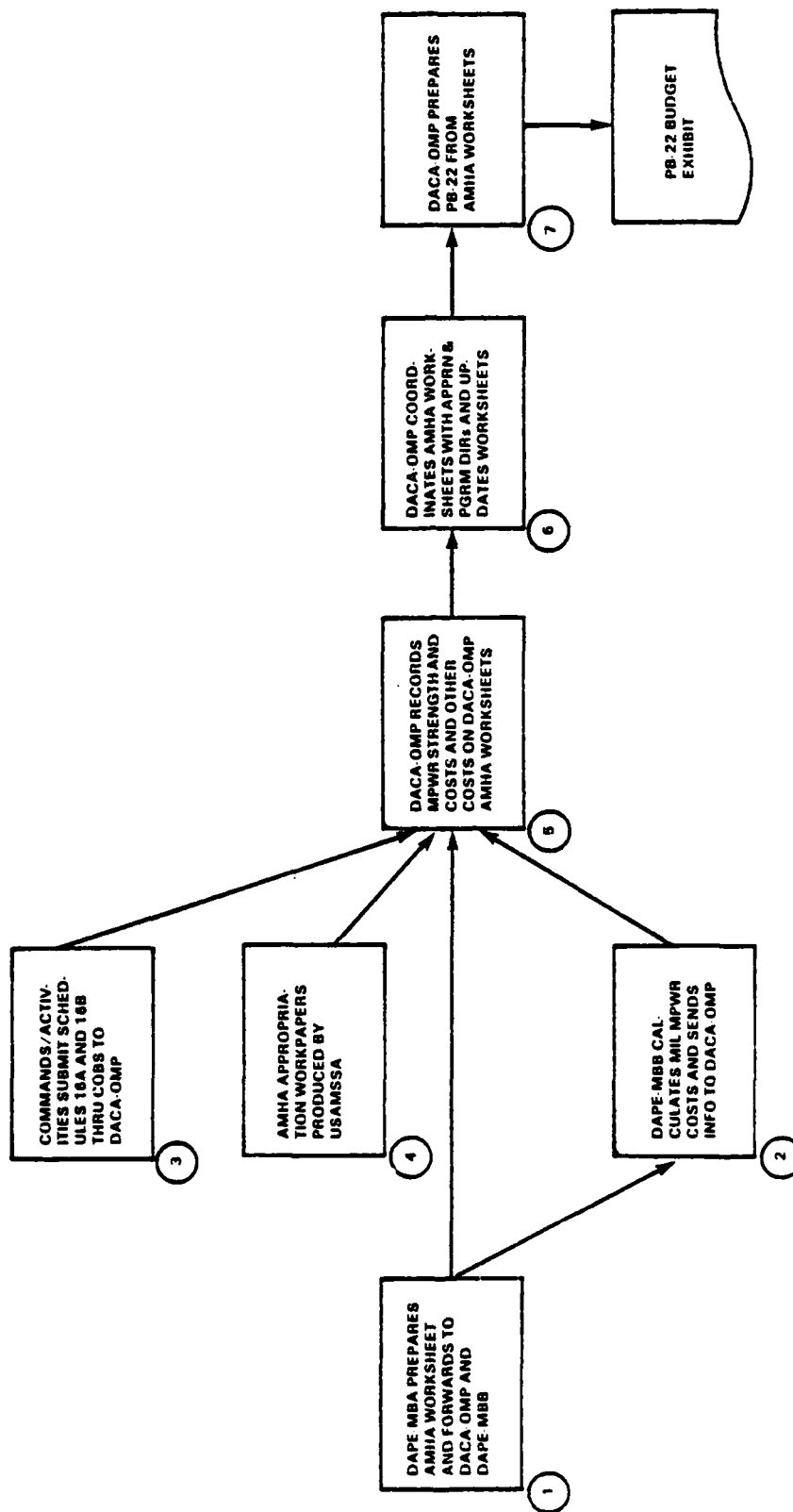


Figure 2.2. Flow Diagram of Existing Preparation Process

	FY82		FY83		FY84		FY85		FY86	
	QNO	ENL	QNO	ENL	QNO	ENL	QNO	ENL	QNO	ENL
Bdth										
SSA - inscom con't										
381198.21										
381198.23										
381351.22										
1KSC 951298.13										
847798										
MDN										
951298.2										
952498.1										
SSA - mdw										
952498.2										
ACC										
393998.91										
951298.41										
TRADOC										
815798										
951298.5										
COE										
665898.Mofoo										
722898.3										
952798										

Figure 2.3. DAPE-MBA AMHA Worksheet

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CHAPTER IV. RESOURCE GUIDANCE, MANPOWER FY83
C. SUMMARY BY ANSCO DEVELOPMENT & READINESS CMD

RCMD	APCAT	SUB	PGM	ANSCO	CTY	PE	OFF	MOF	ENL	MIL	TOTDH	FTP	USDH	FNDH	IDH	MY	IDH
6A01	OMA	075	72289821000	101			0	0	0	0	252	252	252	0	0	233	0
6A01	OMA	075	72289821000	121			0	0	0	0	2	2	2	0	0	2	0
6A01	OMA	075	72289821000	122			0	0	0	0	198	198	198	0	0	194	0
ANSCO	TOTAL						26	0	7	33	452	452	452	0	0	429	0
6A01	OMA	075	72289823000				23	1	10	34	0	0	0	0	0	0	0
6A01	OMA	075	72289823000	101			0	0	0	0	224	224	224	0	0	224	0
6A01	OMA	075	72289823000	121			0	0	0	0	2	2	2	0	0	2	0
6A01	OMA	075	72289823000	122			0	0	0	0	23	23	23	0	0	23	0
ANSCO	TOTAL						23	1	10	34	249	249	249	0	0	249	0
6A01	OMA	075	72289825000				24	0	13	37	0	0	0	0	0	0	0
6A01	OMA	075	72289825000	101			0	0	0	0	268	268	268	0	0	277	0
6A01	OMA	075	72289825000	122			0	0	0	0	73	73	73	0	0	72	0
ANSCO	TOTAL						24	0	13	37	341	341	341	0	0	349	0
6A01	OMA	075	72289827000				30	0	5	35	0	0	0	0	0	0	0
6A01	OMA	075	72289827000	101			0	0	0	0	300	300	300	0	0	282	0
6A01	OMA	075	72289827000	122			0	0	0	0	52	52	52	0	0	51	0
ANSCO	TOTAL						30	0	5	35	352	352	352	0	0	333	0
6A01	OMA	075	72289828000				11	0	6	17	0	0	0	0	0	0	0
6A01	OMA	075	72289828000	101			0	0	0	0	110	110	110	0	0	110	0
ANSCO	TOTAL						11	0	6	17	110	110	110	0	0	110	0
PGNSUB	TOTAL						335	6	77	418	3632	3632	3632	0	0	3554	0
6A01	OMA	09	95129831000	101			0	0	0	0	3	3	3	0	0	3	0
6A01	OMA	09	95129831000	122			0	0	0	0	1	1	1	0	0	1	0
ANSCO	TOTAL						0	0	0	0	4	4	4	0	0	4	0
6A01	OMA	09	95129832000	101			0	0	0	0	2	2	2	0	0	2	0
ANSCO	TOTAL						0	0	0	0	2	2	2	0	0	2	0
6A01	OMA	09	95129834000	101			0	0	0	0	2	2	2	0	0	2	0
6A01	OMA	09	95129834000	122			0	0	0	0	1	1	1	0	0	1	0
ANSCO	TOTAL						0	0	0	0	3	3	3	0	0	3	0
6A01	OMA	09	95129835000	101			0	0	0	0	2	2	2	0	0	2	0
ANSCO	TOTAL						0	0	0	0	2	2	2	0	0	2	0

Figure 2.4. Manpower Resource Guidance Report

information is recorded on the DACA-OMP AMHA worksheets. Examples of these schedules are shown in Figures 2.5 and 2.6.

Block 4 - Appropriation workpapers that contain only AMHA data are produced by The United States Army Management System Support Agency (USAMSSA) from FORDIMS P/BS. These AMHA appropriation workpapers (Figure 2.7) are provided to DACA-OMP. Civilian personnel strength and cost data are extracted from the AMHA appropriation workpapers.

Block 5 - DACA-OMP prepares the AMHA worksheets from the data provided through the steps depicted in blocks 1 through 4. The worksheets (Figure 2.8) are prepared by using the Wang wordprocessor with math package to list all the costs by AMSCO and total the costs by command. The AMHA worksheet organization corresponds to the organization of the PB-22 Budget Exhibit as far as command and activity listings are concerned. All costs, personnel and other-than-personnel, associated with AMHA, are listed and totaled by AMSCO, RCOMD, and MACOM/activity break.

Block 6 - DACA-OMP coordinates the DACA-OMP AMHA worksheets with the appropriation and program directors to verify the data. After coordination is complete the worksheets are updated to reflect inflation, program and other changes affecting personnel obligations.

Block 7 - DACA-OMP uses the information displayed on their AMHA worksheets to manually type the PB-22 Budget Exhibit. Since the worksheet format corresponds to the PB-22 Budget Exhibit, the appropriate totals are simply copied from the AMHA worksheet to the Exhibit. This procedure results in the output of the PB-22 Budget Exhibit.

2.4 Proposed Methods and Procedures

The proposed PB-22 Budget Exhibit ADS will provide a responsive, timely system for the generation of total manpower and financial effort devoted to AMHA. It will produce a report suitable for budget submission and generate worksheet-type reports that may be used for verification and accuracy checks as well as manpower management functions. The

CONRAD OPERATING BUDGET, FY 84/85				ORGANIZATION				APPROPRIATION: OMA			
SCHEDULE NUMBER: 16A				NAME: TRADOC				ACCOUNT: 815798			
TITLE: ARMY MANAGEMENT HEADQUARTERS (AMHA) COSTS				CODE: 57							
AND MANPOWER DATA											
				AMSCO/UIC: 815798 W3YTAA							
MACOM/Sub-NACOM		TRADOC	MQS/SSA ACGR:	HQ STAFF	Fiscal Year: 83	Location (Installation or Area):		Fort Monroe, VA			
Data Description		Obligations		Civilian		Military					
		Dir Oblg (\$ 000)	Reimb Oblg (\$ 000)	Type	ES	FTP	UY	FTP UY	OFF	WO	EML
Part I: Manpower											
A. Civilian											
B. Military											
C. Total											
Part II: Element of Expense											
A. Travel of Personnel											
B. Transportation of Things											
C. Bents, Commu- cations and Utilities											
D. Printing and Reproduction											
E. Other Contract- ural Services											
F. Supplies and Materials											
G. Equipment											
H. Other											
I. Total											
TOTAL AMHA		32,441	445								

OCA Form 179 a 12 March 1982

Figure 2.5. COB Schedule 16A

Command Operating Budget FY 84/85
Schedule Number: 16B
Title: Command Requested Changes by Financing and Manpower (AMHA).
Format A Narrative Descriptions

Organization:
Name: TRADOC
Code: 57

Appropriation: OMA
Account: 815798

Issue	Line Number	Title/Narrative Description
03	00	AIMS/ATIS Consolidation
	01	Transfer of function from TRAD, DCST, HQ TRADOC, to USATSC (W3E9AA)
	02	Reference: Ltr, ATRM-FI, HQ TRADOC, to HQDA (DAPE-MBA-CA), 22 Feb 83,
	03	subject: Adjustment to AMHA Manpower Ceiling - HQ TRADOC (W3YT) -
	04	FY 84, with HQDA status (DA Form 209), as of 3 May 83 (include in
	05	COB). The Automated Instructional Management System (AIMS) is a key
	06	subsystem of the Army Training Information System (ATIS). AIMS has
	07	been managed by ODSCT-TRAD, HQ TRADOC, while ATIS is being developed
	08	by the Command Automation Communication Directorate of USATSC.
	09	Therefore, TRADOC CofS approved consolidation in Dec 82. Resource
	10	identified at that time were identified as 1 Off and 1 Civ, with
	11	funding impact of \$28.8K civilian pay and benefits. Subsequent
	12	CG, TRADOC, decision would transfer only 1 Off, retaining civ (policy)
	13	within AMHA; therefore, original request is modified
	14	accordingly.
	15	POC: Ruth Owens, AV 680-3414.

Figure 2.6. COB Schedule 16B

Command Operating Budget FY 84/85

Schedule Number: 16B

Title: Command Requested Changes by Financing and Manpower (AMHA)

Format B Data Requirements/Transfers

Organization:
Name: TRADOC
Code: 57

Appropriation: OMA
Account: 815798

Issue	Type	Approp	Program Element	Data Code	Category Type	Class	Budget Year Data			Program Year Data		
							Dollars	E/S	Workyears	Dollars	E/S	Workyears
01	01	2020	815798	3SCT	C	122		+1	+1		+1	+1
01	01	2020	815798	3SCT	F	122		+1	+1		+1	+1
02	01	2020	815798	3SCT	MO			-1	-1		-1	-1
02	01	2020	815798	3SCT	MM			+1	+1		+1	+1
03	02	2020	815798	3SCT	MO			-1	-1		-1	-1
04	02	2020	815798	3SCT	C	101		-6	-6		-6	-6
04	02	2020	815798	3SCT	F	101		-6	-6		-6	-6
04	02	2020	815798	3SCT	C	122		-1	-1		-1	-1
04	02	2020	815798	3SCT	F	122		-1	-1		-1	-1
05	02	2020	815798	3SCT	C	101		+6	+6		+6	+6
05	02	2020	815798	3SCT	F	101		+6	+6		+6	+6
06	03	2020	815798	3SCT	MO			+2	+2		+2	+2
07	03	2020	815798	3SCT	MO			-1	-1		-1	-1
07	03	2020	815798	3SCT	MM			+1	+1		+1	+1
08	04	2020	815798	3SCT	MO			+2	+2		+2	+2
09	03	2020	815798	3SCT	C	101		+30	+30		+30	+30
10	03	2020	815798	3SCT	C	101		+1	+1		+1	+1

Figure 2.6 (Cont.). COB Schedule 16B

DIRECT HIRE

ANALYSIS OF CIVILIAN PERSONNEL COSTS
BASIC LEVEL AMHA APPROPRIATION WORKPAPERS
FYEAR - 1983 APPRN - QMA

APPROPRIATION/PROGRAM/ SUB PROGRAM/AMSCO/RCOND	BEGIN	STRENGTHS END	FTE	MAN YEARS	DOLLARS OC 11	IN OVERTIME	THOUSANDS OC 12	TOTAL	AVG DAILY SALARY	PER. OC12/ OC11\$	PER. OT TO OC11\$	AVG YEARLY SALARY
AMSCO = 20809800000												
GRADED US CITIZENS	0	0	0	0	0	0	0	0	.00	.0000	.0000	0
SENIOR EXECUTIVE SERVICE	0	0	0	0	0	0	0	0	.00	.0000	.0000	0
WAGE GRADE US CITIZENS	0	0	0	0	0	0	0	0	.00	.0000	.0000	0
GENERAL MERIT	0	0	0	0	0	0	0	0	.00	.0000	.0000	0
TOTAL	0	0	0	0	0	0	0	0				
3226 CAA												
GRADED US CITIZENS	87	87	87	87	2403	3	302	2708	105.82	.1256	.0012	27620
SENIOR EXECUTIVE SERVICE	3	3	3	3	187	0	20	207	238.82	.1069	.0000	62333
WAGE GRADE US CITIZENS	1	1	1	1	16	0	2	18	61.30	.1250	.0000	16000
GENERAL MERIT	88	88	88	88	4308	0	421	4729	187.56	.0977	.0000	48954
TOTAL	179	179	179	179	6914	3	745	7662				
SUB-AMSCO = 20819810000												
GRADED US CITIZENS	87	87	87	87	2403	3	302	2708	105.82	.1256	.0012	27620
SENIOR EXECUTIVE SERVICE	3	3	3	3	187	0	20	207	238.82	.1069	.0000	62333
WAGE GRADE US CITIZENS	1	1	1	1	16	0	2	18	61.30	.1250	.0000	16000
GENERAL MERIT	88	88	88	88	4308	0	421	4729	187.56	.0977	.0000	48954
TOTAL	179	179	179	179	6914	3	745	7662				
AGGREGATE AMSCO = 208198												
GRADED US CITIZENS	87	87	87	87	2403	3	302	2708	105.82	.1256	.0012	27620
SENIOR EXECUTIVE SERVICE	3	3	3	3	187	0	20	207	238.82	.1069	.0000	62333
WAGE GRADE US CITIZENS	1	1	1	1	16	0	2	18	61.30	.1250	.0000	16000
GENERAL MERIT	88	88	88	88	4308	0	421	4729	187.56	.0977	.0000	48954
TOTAL	179	179	179	179	6914	3	745	7662				
PROGRAM = 02												
GRADED US CITIZENS	2282	2281	2281	2233	58346	607	10150	69103	100.10	.1739	.0104	26128
SENIOR EXECUTIVE SERVICE	5	5	5	5	311	0	34	345	238.31	.1093	.0000	62200
GRADED US DEPENDENT HIRE	0	0	0	0	0	0	0	0	.00	.0000	.0000	0
GRADED PANAMANIAN	0	0	0	0	0	0	0	0	.00	.0000	.0000	0
WAGE GRADE US CITIZENS	1	1	1	1	16	0	2	18	61.30	.1250	.0000	16000
KOREAN	137	0	0	137	1441	5	268	1714	40.29	.1859	.0034	10518
ITALIANS	25	0	0	23	554	5	206	765	92.28	.3718	.0090	24086
OTHER DIRECT HIRE	3	0	0	2	36	1	11	48	68.96	.3055	.0277	18000
GENERAL MERIT	290	290	290	289	13400	6	2666	16072	177.64	.1989	.0004	46366
TOTAL	2743	2577	2577	2690	74104	624	13337	88065				

Figure 2.7. AMHA Appropriation Workpapers

110-
94098.1

AMHA 82 WORKSHEET

S MAJ 8 FY CAT A	CMD	APPR	PE	D	MIL ES	CIV ES	MY	EOE 110	EOE 210	EOE 220	EOE 230	EOE 240	EOE 250	EOE 260	EOE 310	EOE OTHER	TOTAL OTHER	TOTAL ALL
82 1A	CSA	1080	*94098.0	D	10	8	8	260	14								14	274
82 1A	CSA	1080	*94098.0	R														
PROGRAM ELEMENT TOTAL																		
*94098.0																		
PROGRAM ELEMENT TOTAL																		
*94098.0																		
APPROPRIATION TOTAL																		
1080 *94098.0																		
82 1A	CSA	2020	952398.2	D	1510	1618	1633	49644	2579	21			464				3064	52708
82 1A	CSA	2020	952398.2	R				773	210								210	983
PROGRAM ELEMENT TOTAL																		
952398.2																		
PROGRAM ELEMENT TOTAL																		
*952398.2																		
APPROPRIATION TOTAL																		
2020 952398.2																		
82 1A	CSA	2065	*373110.0	D	69	172	181	4176	478			92	359	68		1	998	5174
82 1A	CSA	2065	*373110.0	R														
PROGRAM ELEMENT TOTAL																		
*373110.0																		
PROGRAM ELEMENT TOTAL																		
*373110.0																		
APPROPRIATION TOTAL																		
2065 *373110.0																		
82 1A	CSA	2080	539998.1	D	34	52	51	1535	426	2			28	50			506	2041
82 1A	CSA	2080	539998.1	R														
PROGRAM ELEMENT TOTAL																		
539998.1																		
PROGRAM ELEMENT TOTAL																		
*539998.1																		
APPROPRIATION TOTAL																		
2080 539998.1																		
82 1A	CSA	2080	539998.1	D	34	52	51	1535	426	2			28	50			506	2041
82 1A	CSA	2080	539998.1	R														
PROGRAM ELEMENT TOTAL																		
539998.1																		
PROGRAM ELEMENT TOTAL																		
*539998.1																		
APPROPRIATION TOTAL																		
2080 539998.1																		

Figure 2.8. DACA-OMP AMHA Worksheet

system will operate on the IBM 3033 and IBM 370-165 computers located in USAMSSA with remote interactive input.

The schematic for the proposed PB-22 Budget Exhibit ADS is at Figure 2.9. The system is designed to access the various data bases, and data sets where appropriate, to retrieve the required information, establish an AMHA workfile (discrete data set), and publish the required reports. The primary processing function will be the addition of strengths and cost data to determine the totals for recording on the PB-22 Budget Exhibit. The system is designed to receive, on an interim basis, manual input of COB data until the COB Schedules 16A and 16B are automated.

2.4.1 Summary of Improvements

The PB-22 Budget Exhibit ADS will provide timely generation of budget data that currently requires three weeks of work by two people in DACA-OMP and five days of work by one person in DAPE-MBA for each budget submission. The system will enhance the accuracy of cost calculations and will relieve highly paid analysts of tedious manual manipulation of data. It will also enable the OCOA to be more responsive to guidance changes during preparation of budget submissions.

2.4.2 Summary of Impacts

2.4.2.1 User Organization Impacts

The PB-22 automated system will increase the efficiency of the OCOA as well as that of the ODCSPER manpower managers by saving report preparation time and providing more timely information. There will be no requirements for reorganization in either DACA-OMP or DAPE-MBA.

2.4.2.2 User Operational Impacts

Since this system will be developed after the current OSD budget submission, there will be no adverse impacts on the preparation of the

FY 85 budget submission. After development of the system, the operational impact will be the enhanced ability to analyze budget proposals and submissions. There will be no adverse operational impacts.

2.4.2.3 User Development Impacts

Since the system will employ equipment currently operated by the user organizations, no equipment training will be required. Personnel will have to become familiar with new CRT displays. A system check using the current manual process will be required, but no adverse impact will result.

2.5 Assumptions and Constraints

2.5.1 Assumptions

The following assumptions have been made in developing this system:

- o The PB-22 Budget Exhibit will continue to be required by OSD.
- o Computer time for processing the input and stored data will be made available.
- o The FORDIMS, PPBES and COB data bases may be utilized for producing required outputs.
- o The COB Schedule 16A and 16B will be automated.
- o The Vertical Force Development Management Information System (VFDMIS) data base will be designed to provide the same automated capabilities.

2.5.2 Constraints

The PB-22 Budget Exhibit system is dependent upon information from three different data bases; if any one of those data bases is not available or fails to meet accuracy standards then the system utility will be degraded and it will not provide the expected efficiency improvements. The lack of an automated system for COB Schedules 16A and 16B detracts from the expected efficiency improvement and creates the need for manual input of data until these schedules are automated.

SECTION 3
DETAILED CHARACTERISTICS

3.1 Specific Performance Requirements

The PB-22 Budget Exhibit ADS will be compatible with VFDMIS and must be capable of performing the following tasks:

- Receive data input by remote, interactive terminal from DACA-OMP.
- Retrieve data from FORDIMS P/BS, PPBES and Command Operating Budget System (COBS) required for calculation of AMHA effort.
- Produce a report in the prescribed PB-22 format suitable for budget submission.

3.1.1 Accuracy and Validity

- a. The system must compute strengths and costs accurately. Strength data must be exact to units. Cost data will be accurate to the nearest \$1000 dollars. The round off rule will be outlined later in this FD.
- b. The successful production of a valid PB-22 Budget Exhibit depends on the accuracy of the data. Consequently, data verification and validation are imperative. Audit trail reports will provide for verification of input data. The use of P/BS main file data will ensure the accuracy and validity of strength and civilian personnel cost data. The system will check that data entries fall within specified ranges and are consistent with other verified data. Incorrect or invalid data must be recorded on error reports so that the correct data can be input.
- c. Data transmitted through remote devices in the Pentagon must meet the same rigid requirements that P/BS main file data must meet. Audit trail and error reports will aid in assuring the accuracy of input data.

3.1.2 Timing

Although there are few strict performance requirements for PB-22 Budget Exhibit interactive response times, there are some guidelines. Response times for input and query operations should be real time to provide the operators with results quickly enough to make efficient use of their time. Report production response time is dictated by budget submission deadlines but in no case should exceed 24 hours from the time requested.

3.2 Functional Area System Functions

3.2.1 Data Input

The primary input effort is the entry of COB Schedules 16A and 16B. This requirement will exist until those schedules are automated. DACA-OMP will enter the Element of Expense (EOE) data for each AMSCO by RCOMD. There will be dollar figures entered for up to eight different EOE for each AMSCO. In addition, DACA-OMP periodically will have to enter data to update strength or personnel cost figures. These entries will be in the form of units of strength or dollars of personnel expense.

3.2.2 Data Retrieval

The system will retrieve data from three established data bases. They are FORDIMS P/BS, PPBES and the COBS when the Schedules 16A and 16B are automated. The PB-22 Budget Exhibit system will select military and civilian strength and civilian personnel cost data from the P/BS. It will retrieve military manpower cost data from PPBES. Other-than-personnel costs will be retrieved from the COBS after Schedules 16A and 16B are automated. Prior to automation of Schedules 16A and 16B, the other-than-personnel cost data will be entered by DACA-OMP.

3.2.3 Establishment of AMHA Data Set

The end product of the ADS described in this FD will be the production of the PB-22 Budget Exhibit. The data, input through remote terminal and retrieved from the supporting data bases, will be combined

and manipulated to produce the PB-22 Budget Exhibit. This function consists of identifying by AMSCO, within each reporting command, the military and civilian personnel and associated costs that are devoted to AMHA activities. The personnel and cost values for each AMSCO are added to produce a total for each command/activity. The command totals are printed on the PB-22 Budget Exhibit format, where appropriation and section totals are also listed. In addition to the PB-22 Budget Exhibit, PB-22 workpapers will be provided to DACA-OMP and DAPE-MBA. The DACA-OMP workpapers will show the personnel strength and costs in AMSCO detail by reporting command/activity. The DAPE-MBA workpapers will show by AMSCO, personnel strengths only, with military strengths being listed as officer, warrant officer, enlisted, and total.

3.3 Inputs-Outputs

3.3.1 Inputs

Inputs will be both system and user inputs. System inputs will be the data retrieved from the supporting data bases. User input will be by remote terminal at DACA-OMP. The input will be through user-friendly CRT screens with appropriate automated prompts. The primary data input will be EOE information. EOE are listed and defined in AR 37-100. The major EOE listing, such as 2100, will be used in reporting AMHA costs. EOE will be entered in thousands of dollars and can range from 1 to 999,999. Other inputs would be changes to P/BS and PPBES data and will be in the format of those data bases.

3.3.2 Outputs

The PB-22 ADS outputs will be in the form of hard copy reports and CRT displays. The PB-22 Budget Exhibit, in hard copy, will be the primary output. Secondary outputs will be the DACA-OMP and DAPE-MBA workpapers. The workpapers will be available in hard copy and CRT displays. The data in all the reports will be strength and dollar figures. Strength figures will be in units from 1 to 999,999. Dollar figures will be in thousands of dollars from 1 to 999,999.

3.4 Data Base Characteristics

The PB-22 system is dependent upon three different data bases for information. However, the final outputs of the system will be in the form of the P/BS data base. The PPBES provides only military cost factors that will be multiplied by P/BS strength figures. The result will be in P/BS data elements. The COB will provide initial dollar figures for costs that will be added to the P/BS cost figures producing data in the P/BS format. Consequently the PB-22 discrete data set will be in the P/BS format and compatible with the P/BS data base. Volume I, FORDIMS User's Guide, describes the P/BS data base.

3.5 Failure Contingencies

Lengthy, major failures of the hardware or software systems are not anticipated. However, failures of relatively short duration may occur. Under such circumstances, failure contingencies and alternate courses of action may be taken to temporarily satisfy PB-22 Budget Exhibit preparation requirements.

- a. Back-up. The systems which run on the USAMSSA computer are stored on disk files. USAMSSA provides back-up by daily dumps from disk to magnetic tape. Some of the input data will be retained on hard copy. Consequently, the loss of critical operational software or data would be minimal.
- b. Fallback. Should the mainframe operating system at USAMSSA fail, batch processing or manual manipulation and recording of data may be used. It should be noted that return to manual procedures would create significant time delays in producing the PB-22 Budget Exhibit.

3.6 Security

Although some of the data bases on which the PB-22 system depends are classified, the degree of detail and format of PB-22 Budget Exhibits render them UNCLASSIFIED. The DACA-OMP and DAPE-MBA workpapers will be CONFIDENTIAL because Subprogram 3I is displayed at AMSCO level of detail. The data in the PB-22 Exhibit discrete data set is sensitive in

that it has high Congressional and OSD attention. Access to that data must be restricted on a strict need to know basis to the analysts in DACA-OMP and DAPE-MBA.

SECTION 4

DESIGN DETAILS

This section provides a detailed description of the PB-22 ADS which will satisfy the system requirements outlined in more general terms in Section 2 and 3.

4.1 System Description

The PB-22 ADS is designed to produce the Army Management Headquarters Activities Budget Exhibit (PB-22). It will also provide detailed information to OCOA and ODCSPER analysts for oversight, direction, and control efforts related to AMHA. The relationship of user organizations to the system is shown in Figure 4.1. The system uses established data bases, as well as data entered by interactive, remote terminals, to calculate the AMHA effort by Army controlled or supported activities. The established systems on which the PB-22 ADS relies are the P/BS and PPBES. When the COB Schedules 16A and 16B are automated, the COB will also be an automated resource. At the present, the PB-22 ADS will depend on remote interactive terminals to enter the data contained in Schedules 16A and 16B and update of DACA-OMP workpapers.

The PB-22 ADS is designed to use input and retrieved data to determine by AMSCO the total manpower and dollar resources devoted to AMHA. The level of detail to which AMSCO costs are identified is sufficient to identify the command or activity which the AMHA effort supported. The AMSCO costs will be totalled by appropriation in each reporting command/activity, then totalled again for each section of the PB-22 Budget Exhibit (The PB-22 Budget Exhibit Format was shown in Figure 2.1). In addition to the Budget Exhibit, a DACA-OMP workpaper and a DAPE-MBA workpaper will be prepared. The DACA-OMP workpaper will show the EOE costs by AMSCO detail within each command/activity. The DAPE-MBA workpaper will reflect personnel strengths only. The workpapers will also be available via remote terminal CRT displays.

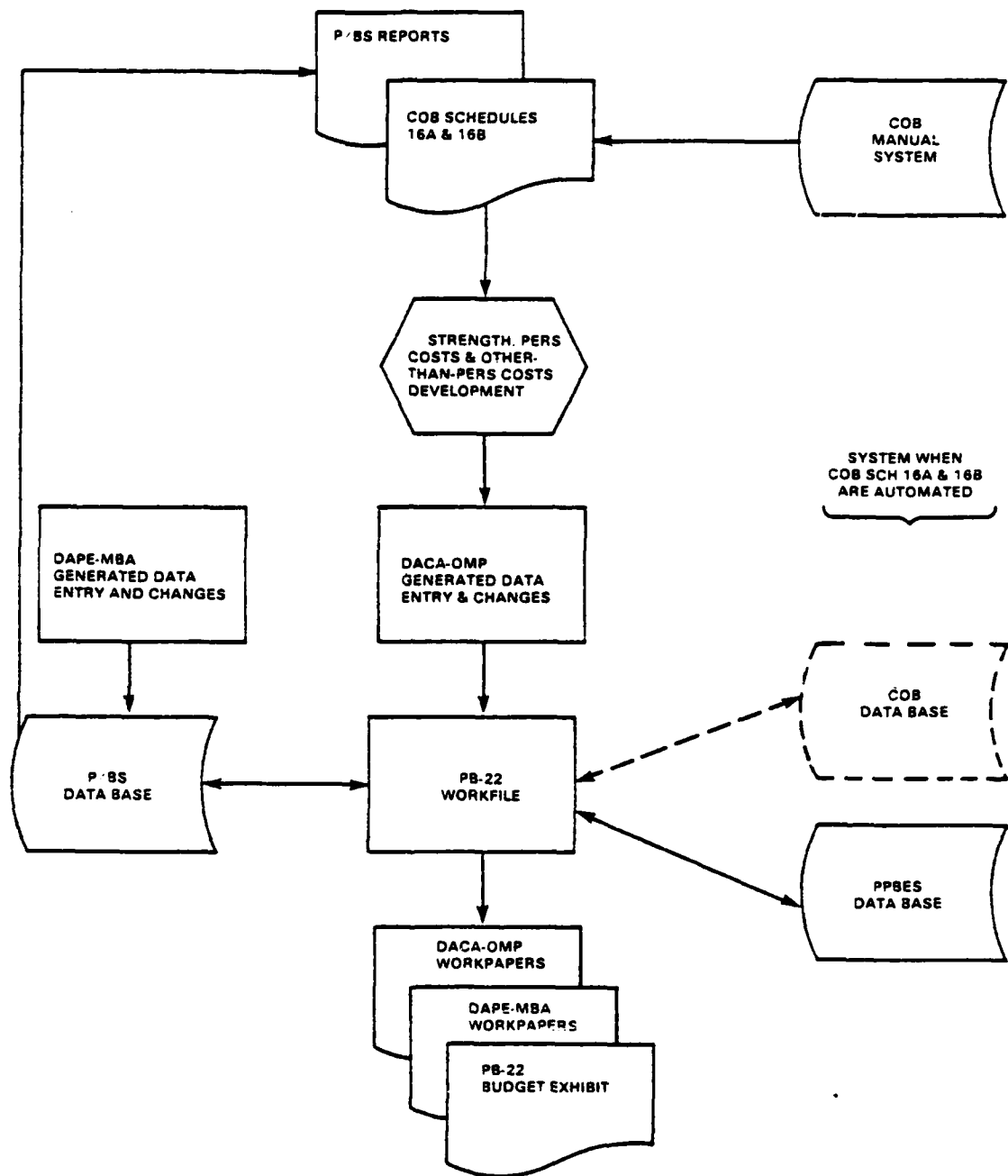


FIG. 4.1 Schematic of the PB-22 ADS and User Organization Interfaces

4.2. System Functions

- The data input function will be performed by DACA-OMP using the Four Phase Systems, Inc, Data IV/50 remote controller terminal cluster. This equipment provides DACA-OMP on-line, interactive data input capability. The data input will consist of dollar figures for different EOE obligated in support of AMHA. The initial data will come from COB Schedules 16A and 16B and will be key-punched by use of user-friendly screen layouts with automated prompts. Other data input by remote terminal will be additions, deletions, or changes to initial DACA-OMP draft workpapers, and data retrieved from P/BS or PPBES. The formats for the screens are described in paragraph 4.4.1 below.
- Data retrieval will consist of retrieving military and civilian personnel strengths and civilian personnel costs from the P/BS data base. The data will be retrieved by AMSCO in sufficient detail to indicate the reporting command/activity obligations. In addition military personnel cost factors will be retrieved from the PPBES data base. When the COB Schedules 16A and 16B are automated the other-than-personnel costs will be retrieved from the COBS data base.
- To provide a means for data manipulation, a workfile or permanent discrete data set will be established for the PB-22 ADS. This discrete data set will contain all the data input by remote console data entry and data retrieved from established data bases. All manipulations necessary for producing the PB-22 Budget Exhibit will be performed in the PB-22 discrete data set.
- The reports publishing function produces the reports described in paragraph 4.4.2 below. This function is the culmination of the system operations. The reports produced from the PB-22 discrete data set are the PB-22 Budget Exhibit, the DACA-OMP workpapers, and DAPE-MBA workpapers.

4.2.1 Accuracy and Validity

- a. The OP-22 ADS will accurately compute costs to the dollar and round off to the nearest \$1000 dollars. Rounding off will be done consistently using the following rule: amounts that end with \$500 or more will be rounded up to the next \$1,000; amounts that end with less than \$500 will be rounded down to the next lower \$1000.
- b. Data retrieved from the P/BS will be from the main file. The P/BS main file data are checked and verified through very stringent processes. Likewise the data retrieved from the PPBES data base have met stringent verification and accuracy checks. However, the workpapers produced by the PB-22 system will provide an opportunity for verification of the data used in producing the PB-22 exhibit. The data entered by DACA-OMP must be accurate to the nearest \$1000 and will be verified by DACA-OMP through use of input screen call-up and DACA-OMP workpapers.

4.2.2 Timing

- a. Throughput time will be a function of priorities for computer time. Because of the stringent requirements for development of budget exhibits, the throughput time will never exceed 24 hours.
- b. The PB-22 ADS is a very simple system that has essentially one processing step, which is manipulation of the data in the discrete data set. This process depends upon having data in the data set. Consequently, data input and data retrieval must precede data manipulation. Publication of reports will be the last function performed and must follow the data manipulation function. The DACA-OMP and DAPE-MBA workpapers will be produced and coordinated with subprogram directors to update cost data before the final PB-22 Budget Exhibit is produced.

- c. The system can produce reports regardless of the age of the data as long as all data elements have values. However, the program should not be executed until updated data are provided. The input data are not dependent upon the retrieved data and vice versa. Consequently there are no mandated priorities within the system. The users must decide whether to run the system based on knowledge of data inputs or the status of the data bases being used by the system.
- d. There are no established timing requirements for traffic load variations.

4.3 Flexibility

The PB-22 ADS will be compatible with VFDMIS. Since the PB-22 ADS partially depends on P/BS for data, it also will be capable of integration with P/BS and, in fact, will meet part of one of the objectives of P/BS, i.e., the generation of budget documents for civilian personnel costs. The system will be designed to allow additional data elements in any category or modification of the definition or scope of any data identification. For example, the number of EOE or AMSCO listed may be increased. The system will be designed for automated data retrieval from the COBS data base but will have the capability of data entry of the Schedules 16A and 16B data fields. The system will provide the users the capability to change any of the values in data elements retrieved from the P/BS or PPBES data bases.

4.4 System Data

4.4.1 Inputs

4.4.1.1 Other EOE Screen

- a. The title is Other EOE.
- b. Format is at Figure 4.2. The heading is "OTHER ELEMENTS OF EXPENSE." Columns are numbered for reference in the FD only and the following descriptions are keyed to the column numbers.

OTHER ELEMENTS OF EXPENSE

APCAT	MACOM/ Sub-MACOM	UIC	HQ/ SSA	AMSCO	FY	DIR/ REIM	EOE 2100	EOE 2200	EOE 2300	EOE 2400	EOE 2500	EOE 2600	EOE 3100	EOE OTHER	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(9)

Figure 4.2. Other Elements of Expense Screen

- (1) APCAT - This field contains the four-place numerical appropriation code. The APCAT designations are listed in Table 4.2.
- (2) MACOM/Sub-MACOM - The command or activity abbreviation for which AMHA are being reported is placed in this column. The commands/activities and their abbreviations are listed in Table 2.1.
- (3) UIC - The Unit Identification Code of the command/activity listed in field (2) is entered here. The UIC is a 5-character, alpha-numeric code. The UIC are listed in Appendix D.
- (4) HQ/SSA - This field will indicate whether the costs are for direct headquarters activities (indicated by HQ), or for staff support agency activities (indicated by SSA).
- (5) AMSCO - The AMSCO for which costs are recorded will be placed in this field. The field will contain up to eleven positions.
- (6) FY - The fiscal year for which costs are being reported will be shown in this field.
- (7) DIR/REIM - This field indicates whether the costs are direct (indicated by DIR), or reimbursable (indicated by REIM).
- (8) EOE - These fields contain the dollar obligations, in thousands of dollars, which support AMHA. The headings will contain the EOE designations as shown in Figure 4.2. The EOE OTHER field will show obligations for EOE other than 1100, which is basic compensation, and the EOE specifically listed in Figure 4.2. For a complete listing of all EOE and their definitions see AR 37-100. The values for the fields can range from zero to 99,999.
- (9) TOTAL - The EOE values are totaled and the number recorded in this field. The values in this field can range from zero to 999,999.

- c. There are 16 fields for which entries are required.
- d. The data will be key punched at the DACA-OMP remote console utilizing user-friendly screens called up by DACA-OMP when it is desired to enter data. The screens will have automated prompts.
- e. There are now 139 separate detailed AMSCO for which obligations will be entered. Data must be entered for each of those at least one time for each of the two annual budget cycles. The system will have the capability of increasing the number of AMSCOs for which data must be entered. There is no set priority for peak loads. However, the AMSCOs will be queued in numerical order if the system cannot accept the input as it is entered.
- f. The priority for entry of these data will be routine unless budget requirements demand otherwise.
- g. The sources for the data are the COB Schedules 16A and 16B. The source documents will be retained on file at DACA-OMP and will also be available from the COB data base.
- h. Strengths and obligations associated with AMSCO within sub-program 3I are classified CONFIDENTIAL. All other data are UNCLASSIFIED.
- i. It is expected that the data will be sent to the PB-22 discrete data set on a real time basis. The throughput time for all data entry and processing will not exceed 24 hours.

4.4.1.2 PB-22 Data Set Changes Screen

- a. The title is PB-22 Data Set Changes.
- b. The format will be a user-friendly, automatic prompt screen that will lead the user through one or a series of actions and responses. The purpose of the screen is to provide the capability for updating the PB-22 discrete data set. Consequently, the data elements will be those which are used to prepare the PB-22 budget exhibit. An example of a user-friendly, automatic prompt screen is shown in Figure 4.3. This example is not mandated but is furnished as the type of input screen that is desired.

PB-22 DATA SET CHANGE SCREEN

DATA ELEMENT CHANGES

1. Do you wish to change any data elements? (yes or no)
2. From which data base? (P/BS, PPBS, COBS)
3. What is the element identification? (Enter identification)
4. What is the new value? (Enter new value)
5. Do you want to change any other element in the same data base? (yes or no)
6. (If yes, repeat 3 and 4)
7. (If no, return to #1)
8. (If no to #1, Do you wish to terminate?)
9. (If yes, terminate; if no return to #1)

Figure 4.3. Example of User-Friendly Data Change Screen

- c. The prompts can be provided continuously until the user decides to terminate the screen.
- d. The data will be keyed into the remote console in response to the prompts.
- e. There will be periodic changes to the data set on a continuous basis. Just prior to budget submission there may be a large number of changes.
- f. The data will be entered on a routine basis but may require higher priority depending on budget submission requirements.
- g. The data will be derived from a number of program and budget documents. The source documents will be maintained on file in DACA-OMP or DAPE-MBA, as appropriate.
- h. Strengths or obligations associated with AMSCO in Subprogram 3I are classified CONFIDENTIAL. All other data are UNCLASSIFIED.
- i. Response time for data entry will be real time.

4.4.2 Outputs

4.4.2.1 PB-22 Budget Exhibit

- a. The title of the output is the PB-22 Budget Exhibit.
 - b. The format for the PB-22 Budget Exhibit is shown in Figure 2.1. A correlation table identifying applicable P/BS data elements is at Table 4.1. The definitions of the columns and lines are explained in detail in Section 2 and will not be repeated here. The column and line spacing will be explained below and will correspond with the numbers in parenthesis in Figure 2.1. An example of the PB-22 Budget Exhibit showing the roll-up of totals by line is shown in Appendix E.
- (1) FY Headings - Between each FY grouping will be five columns.
 - (2) Category, etc. - This field will be 20 columns wide.
 - (3) Military End Strength (FSA) - This field will be five columns wide and will be five columns from the previous field.

TABLE 4.1
CORRELATION BETWEEN PB-22 BUDGET EXHIBIT AND P/BS

This table provides a correlation between PB-22 Budget Exhibit entries and the P/BS data elements. The numbers in parentheses following the PB-22 entry identification correspond to the numbers in parentheses in Figure 2.1.

<u>PB-22 Budget Exhibit</u>		<u>P/BS File</u>
1. Category/Organization/ Appropriation (2)	- Category	= Generate from Table 2.1
	- Organization	= RCOMD
	- Appropriation	= APCAT
2. Military End Strength (3)		= Total of APENL, APOFF and APWOF
3. Civilian End Strength (4)		= APCIV
4. Civilian Workyears (5)		= APMYR
5. Total Obligations (6)	- Military	= Computed by multiplying PPBES military cost fac- tors by APENL, APOFF and APWOF and adding all three together
	- Civilian	= Calculated by adding to figure in Total \$ Field of AMHA Appropriation Workpapers the EOE costs derived from COB Sched- ules 16A and 16B

- (4) End Strength (Civilian) - Field width for this entry will be five columns and the field will be three columns from the previous field.
- (5) Workyears - The field for this entry will be five columns wide and three columns from the previous field.
- (6) Total Obligation - Field width for this entry will be eight columns and will be separated from the previous field by three spaces.
- (7) Army Management Headquarters - This line will be on the second line below the headings.
- (8) Departmental - This first line with entries will total strenths and obligations of all the activities in the subparagraphs and will begin on the line below the previous line. All the lines of this subparagraph of the report will be recorded on consecutive lines. The appropriation abbreviations/ acronyms MPA and OMA shown in Figure 2.1 will be indented from the subparagraph title by two spaces. Dir and Reim notations will be indented two spaces from the appropriation title. Subsequent subparagraphs will have the same margins but will be placed on the second line below the previous entry.
- (9) DS - This abbreviation for Departmental Support will be placed on the second line below the last entry beginning in the same column that Departmental began. Indentions for appropriations, etc. will be the same as described for Departmental above.
- (10) OSA - Subsequent command/activities will have the same margins and line spacings as described in (8) above.
- (11) FORSCOM - Entries within subsequent subparagraphs, such as the MACOM FORSCOM shown in the example, will begin on the second line below the previous entry and directly beneath (beginning in the same column as) the subparagraph title.

- c. There are four fields in each of the fiscal year groups for which data will be computed by the system.
- d. There are no requirements for preprinted forms.
- e. The output will be a report in hard copy.
- f. Fifteen copies of the final report are required for each budget submission. Interim reports may be requested on an as-required basis.
- g. The reports will be generated on a routine basis but may require higher priority processing depending on budget requirements.
- h. Response will be real time and in no case more than 24 hours.
- i. Dollar values will be accurate to the nearest \$1000 and will be calculated using the round-off rule stated in paragraph 4.2.1 above. End strengths and work years will be retrieved from the P/BS data base and will be exact to the nearest unit.
- j. The reports will be provided to DACA-OMP for submission to OSD as part of the overall Army budget.
- k. The individual data elements and the reports are unclassified.

4.4.2.2 DACA-OMP Workpapers

- a. The title of the output is DACA-OMP AMHA Workpapers.
- b. The format for the report is shown in Figure 4.4. The format shows numbers in parentheses below the field headings. These numbers are provided to facilitate the description of the format in this FD only and should not be included in the final product. Lines will be listed consecutively except that a space will be made following each total. The report heading will be centered at the top of the report. The first line of the heading will show "AMHA WORKPAPERS-DACA-OMP." The second line will indicate the budget submission for which the workpapers are prepared. For FY85 the line would be "FY85 OSD BUDGET SUBMIT" for the OSD budget submission. OSD will be replaced by PB for the President's budget submission. The

third line will show the FY for which the data are shown, "FY 1984" is used in Figure 4.4.

- (1) CMD/ACTIVITY - This field will show the command or activity for which strength and costs will be recorded. The commands or activities listed will be in the same order as the PB-22 exhibit. A total for the command or activity will be shown at the end of all listings pertaining to the command. This field will be 20 columns wide and left-justified.
- (2) HQ/SSA - This field will contain the notation HQ for headquarters activities or SSA for staff support activities. For each command, AMHA are listed separately for headquarters activities and for those activities that are performed by subordinate agencies in support of the headquarters. A total will be shown separately for HQ and SSA within each command or activity listing. The field for this entry will be three columns wide and will be two columns from the previous field.
- (3) APCAT - The appropriation category will be listed in this field, which will be four columns wide and separated from the previous field by one column. The field will show MPA for Military Personnel, Army appropriation first, followed by the 4-digit numerical code for other appropriations in the order shown in Table 4.2. MPA strengths and obligations are shown on one line in the headquarters activities (HQ) listing and on a separate line in the SSA listing. Other appropriations will be further broken down by AMSCO and direct and reimbursable categories as shown in succeeding fields. The total for each APCAT will be shown before entering another APCAT.
- (4) AMSCO - Each AMSCO which supports AMHA will be shown in this field. The AMSCOs will be listed sequentially

AMHA WORKPAPERS -DACA-OMP
FY85 BUDGET SUBMIT
FY1984

CMD/ ACTIVITY (1)	HQ/ SSA (2)	AFCAT (3)	AMSCO (4)	DIR/ REIM (5)	MIL ES (6)	CIVILIAN		ELEMENT OF EXPENSE - DOLLARS										TOTAL O-T-P (11)	TOTAL ALL (12)	
						ES (7)	WY (8)	1100 (9)	2100 (10)	2200 (10)	2300 (10)	2400 (10)	2500 (10)	2600 (10)	3100 (10)	OTHER (10)				
CMD #1	HQ	MPA	#1	D	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
			AMSCO	TOTAL																
		AFCAT	#2	D																
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TABLE 4.2
APPROPRIATION ORDER FOR DACA-OMP WORKPAPERS

In the DACA-OMP Workpapers, the Appropriation (APCAT) will be listed in the order shown below under each command. If a command has no AMHA support provided by an appropriation, that appropriation need not be listed.

<u>APCAT</u>	<u>Appropriation</u>
2020	Operation and Maintenance, Army (OMA)
2065	Operation and Maintenance, Army NG (OMARNG)
2080	Operation and Maintenance, Army Reserve (OMAR)
1705	National Board for Promotion of Rifle Practice (NBPRP)
2040	Research, Development, Testing & Evaluation (RDT&E)
2050	Military Construction, Army (MCA)
2086	Military Construction, Army Reserve (MCAR)
4992	Army Industrial Fund (AIF)
0700	Military Family Housing (MFH)
1080	Military Assistance Program (MAP)

showing direct and reimbursable obligations and a total for the AMSCO. The field will be eleven columns wide and separated from the previous fields by two columns. The AMSCOs will be decimal-justified.

- (5) DIR/REIM - This field will show by entering a "D" for direct or an "R" for reimbursable the types of obligations incurred for AMHA within each AMSCO. This notation applies only to civilian personnel and other costs and will not be shown for MPA obligations. The field will be one column wide and will be separated from the previous field by two columns.
- (6) MIL ES - Military FSA is shown in this field. Entries will be made in this field opposite the MPA notation in the APCAT field only. The field will be five columns wide and will be separated from the previous field by one column. The data will be right justified.
- (7) CIVILIAN ES - This field will contain civilian end strength. The field will be five columns wide and will be separated from the previous field by one column. The strengths entered will be right-justified.
- (8) CIVILIAN WY - Civilian workyears will be reported in this field which will be five columns wide and separated from the previous field by one column. The data will be right justified.
- (9) EOE 1100 - Personnel compensation is included in EOE 1100. It will be right-justified in the field, which will be five columns wide and separated from the previous field by one column.
- (10) EOE 2100, etc. - All other-than-personnel obligations will be shown in the appropriate EOE field. Obligations associated with EOE not specifically listed will be entered in EOE OTHER. The fields will be five columns wide with a one column separation between fields. The data in the fields will be right-justified.

- (11) TOTAL O-T-P - The total of all the other-than-personnel EOE, shown in all fields identified by (10), will be shown in this field. The data will be right justified and the field will be six columns wide and separated from the previous field by one column.
- (12) TOTAL ALL - This field will show obligations for MPA and the total obligations for all EOE. The field will be six columns wide and separated from the previous field by one column.
- c. There are nineteen fields in which entries will be made.
- d. There are no preprinted form requirements.
- e. The workpapers will be printed in hardcopy for each budget cycle. The workpapers will also be available for screen call-up and may need to be split. For ease of reference the second screen will show the AMSCO and D and R identification associated with the data shown.
- f. Two copies of the hard copy report will be printed during each budget cycle and as required otherwise. The screens will be available for reference.
- g. The reports will be generated on a routine basis but may require priority processing depending on budget requirements.
- h. Response time will be real time. In no case will the hard copy response exceed 24 hours.
- i. Dollar values will be accurate to the nearest \$1000 and will be calculated using the round-off rule stated in paragraph 4.2.1 above. End strengths and workyears will be exact to the nearest unit. All other data will be retrieved in the exact terminology and values as listed in the data base from which retrieved. An error rate of more than .05 per cent is unacceptable.
- j. The workpapers will be provided to DACA-OMP for verification and information purposes.
- k. Subprogram 3I workpapers are classified CONFIDENTIAL when strength or costs are listed in AMSCO detail. Subprogram workpapers other than 3I are UNCLASSIFIED. Individual data elements are not classified.

4.4.2.3 DAPE-MBA AMHA Workpapers

- a. The title of the output is DAPE-MBA AMHA Workpapers.
- b. The format for this report is shown in Figure 4.5. The format shows numbers in parentheses below the field headings to facilitate the description of the format in this FD only and should not be included in the final product. The discussion of the fields corresponds to the numbers in parentheses. Lines on the workpapers will be filled consecutively except that one line space will be provided after each total. The heading will be centered. The first line of the heading will show "FY85 BUDGET SUBMIT-OSD" except that the FY will change based on the budget submission being prepared; "OSD" reflects the OSD budget submission and "PB" reflects the President's budget submission.
 - (1) CMD/ACTIVITY - The command or activity for which AMHA data are shown will be stated in this field. The commands or activities will be listed in the same order as the PB-22 exhibit. A total in each strength field will be shown at the end of all listings for that command or activity. The field will be 20 columns wide and will be left-justified beginning in the leftmost column.
 - (2) HQ/SSA - This field will contain the notation HQ for headquarters activities or SSA for staff support activities. For each command, AMHA are listed separately for headquarters activities functions and for those activities that are performed by subordinate agencies in support of the headquarters. A total will be shown separately for HQ and SSA within each command or activity listing. The field for this entry will be three columns wide and will be two columns from the previous field.
 - (3) AMSCO - Each AMSCO which supports AMHA will be shown in this field. The AMSCOs will be listed sequentially.

[illegible]

Figure 4.5. DAPE-MBA Workpapers Format

The field will be eleven columns wide and separated from the previous field by three columns.

- (4) OFF - The officer force structure allowance in the AMSCO supporting AMHA will be listed for the appropriate FY. The FY shown will reflect the prior year, current year, or budget year as appropriate. For the FY85 budget submission, the years shown would be FY83, FY84, and FY85.

The officer field will be five columns wide and will be separated from the previous field by five columns. The data in the field will be right-justified.

- (5) WO - The warrant officer FSA for the AMSCO supporting AMHA will be shown in this field for the appropriate FY. The field will be five columns wide and separated from the previous field by two columns. The data will be right-justified.

- (6) ENL - This field will show the enlisted FSA supporting AMHA corresponding to the listed AMSCO for the appropriate FY. The data will be right-justified. The field will be five columns wide and separated from the previous field by two columns.

- (7) FSA TOTAL - The total military FSA in the listed AMSCO supporting AMHA will be listed in this field. The data will be right-justified. The field will be five columns wide and separated from the previous field by two columns.

- (8) CIV ES - This field will show the civilian end strength supporting AMHA in the listed AMSCO. The field will be five columns wide and separated from the previous field by two columns. The data will be right-justified.

- c. There are 18 fields in which entries will be made.
- d. There are no preprinted form requirements.
- e. The medium for the report will be remote console screen. The screen may have to be split. If so, fields (1) through (3) will be shown on each screen with each FY. The report will be available in hardcopy if requested.

- f. The screens will be available when called up. The hard copy report will be provided in the requested number of copies.
- g. The screens or report will be required on a routine basis unless budget requirements dictate otherwise.
- h. Remote entry console response time will be real time. The hard copy response time will not exceed 24 hours.
- i. The data will be reflected exactly as they reside in the P/BS data base.
- j. The work papers format will be available to DAPE-MBA for strength management and information.
- k. Subprogram 3I is classified CONFIDENTIAL. All other subprogram data are unclassified.

4.4.3 Data Base

The PB-22 ADS will have a discrete data set which will be composed with data from the P/BS, PPBES, and COBS data bases. The data set will be configured so that strength and cost data can be identified by AMSCO and PB-22 reporting command or activity, of which there now are approximately 66 (see Appendix D). Initially the data set will be stored permanently on one disk pack. As the system is further developed and refined, the storage size may require alteration. Although the information in the data set is classified CONFIDENTIAL. It is of a sensitive nature and will be protected from unauthorized access and manipulation.

SECTION 5

ENVIRONMENT

This section provides a description of the current ADP environment, and projects the environment needed to satisfy the requirements delineated in Sections 3 and 4.

5.1. Equipment Environment

The automated system is expected to be supported by the USAMSSA computer environment with interactive links to DACA-OMP and DAPE-MBA. The present equipment operating environment will support the development of the software leading to automation of the PB-22 Budget Exhibit displays.

The equipment environment includes the hardware presently available at USAMSSA for support of the P/BS. The automation of certain DACA-OMP civilian budget exhibits will require interactive and batch computer support and supporting hardware for its development and operation.

The following is a broad description of the USAMSSA equipment presently available to support the automation of the budget displays which this FD defines. The discussion of the equipment configuration requires that the following equipment categories be addressed:

- Processors
- Storage media
- Output devices
- Input devices
- Communications Net

5.1.1 Processors

The mainframe capability of USAMSSA will be utilized to support the development of automated exhibits for PB-22 budget exhibit displays with interactive links to terminals located in DACA-OMP and DAPE-MBA.

USAMSSA has an IBM 3033 processor with 16 megabytes of main memory (core), and an IBM 370/165 with 6 megabytes of main memory. The two CPU (Central Processing Unit) operate loosely, coupled with shared queues and peripherals. They operate under the Multiple Virtual Storage (MVS) operating system. The existing IBM 370/165 system will be replaced by a fourth generation IBM 3081 Model K (or equivalent) with faster processing capability and added storage capacity.

5.1.2 Storage Media

The part of the computer that is able to store data is the computer's memory or storage. Storage refers to keeping processed data for future reference. The data are placed on storage media such as paper, magnetic tapes, or microfilm for retrieval when needed.

The USAMSSA storage media consists of:

- 31 Gigabytes DASD (Direct Access Storage Device) (112 disk drives).
- 38 Tape Drives (30,000 tapes)

5.1.3 Input/Output Devices

All data processing follows the same flow pattern of input, processing, and output.

- Input involves collection of data and verification of their accuracy, followed by conversion to machine-readable form so that it can be entered into the data-processing system.
- Processing relates, in order, to the classification, sorting, calculation, summarization, and storage of data.
- Output is the information that is produced by the computer after the processing steps identified above have been completed.

The input/output devices in the USAMSSA environment configuration are:

- Input
 - 564 terminals
 - 62 RJE (Remote Job Entry)
- Output
 - 2 laser, and 5 impact local printers
 - 564 terminals
 - 62 RJE

5.1.4 Communications Net

Communication nets carry data from one location to another, and are the links permitting transmissions of electrical signals between locations. Types of communications nets used for data transfer are telegraph and telephone lines, coaxial cables, communications satellites, and laser beams.

5.1.5 USAMSSA Modernization Program

Effective 30 September 1983, the Government signed a contract with the Centennial Computer Corporation to provide USAMSSA with new CPUs, Communications Processors (CPs), and various contractor services. Significant milestones, which are projected to occur during the 8-year period of the contract, are:

November 1, 1983	Replace IBM 370-165 with an AMDAHL 5860 32 Megabyte, 24 channel CPU, processing speed: 13 Million Instructions Per Second (MIPS).
January 1, 1984	Install three AMDAHL 4705E Communications Processors; two for production, one for backup purposes.
April 1, 1984	Replace IBM 3033 with AMDAHL 5860 24 Megabyte, 24 channel CPU, processing speed: 13 Million Instructions Per Second (MIPS).

January 1, 1985

Upgrade second AMDAHL 5860 to AMDAHL 5880 48 Megabyte, 48 channel CPU, processing speed: 26 Million Instructions Per Second (MIPS).

January 1, 1985
until contract
end

Install three additional AMDAHL 4705E communications processors. Final configuration will be four CP's for production, two CP's for backup.

The addition of the first AMDAHL 5860 CPU will give USAMSSA an increase of 250 percent in its CPU processing capabilities. When the AMDAHL 5880 CPU is installed, USAMSSA will increase its CPU processing capabilities by over 500 percent over the present capabilities. The installation of the AMDAHL 4705E CPs will allow the Agency to enter into a true networking environment keynoted by an orderly migration to the IBM Systems Network Architecture.

5.2 Support Software Environment

Software refers to the sets of prewritten, standardized computer programs, procedures, and related documentation that are developed for an ADS. Many organizations employ programmers to develop software programs for their internal operations. This approach, called "in-house" development, allows for programming creativity. On the other hand, it requires significant staff expenditures, and in many instances results in duplicative effort in, and among, organizations. For these reasons, firms specializing in software development have been formed to meet the growing demand for prewritten programs.

Systems programs, or packages, are normally machine-dependent; thus, system programming is normally accomplished by the manufacturer of the hardware, or, as pointed out above, by specialized programming firms. USAMSSA already has a variety of software packages which will provide multiple user interactive, on-line, query, and update service to meet the user's needs.

5.3 Interfaces

The interfaces are the means and equipment by which data relating to the P/BS are exchanged between DACA-OMP, DAPE-MBA and the USAMSSA Computer facility.

DACA-OMP has a Four-Phase Systems Inc Data IV/50 remote controller terminal cluster. This is an intelligent terminal system consisting of:¹

- A Model 5001-99 processor
- Three Model 5115-A display stations
- Two Model 8121 character printers

The IV/50 system is used for both remote data entry and on-line inquiry and retrieval. The IV/50 system has no local storage capability and no batch communications mode. Data are input to the USAMSSA computer data base by using an interactive communications capability with an IBM 3270 protocol. The advantages of this arrangement are:

- The 5001-99 processor contains the terminal's 48K memory and interfaces with the CRT display stations and printers. The 5001-99 has an on-line capability to operate in an interactive mode with discrete data sets (files) resident on the USAMSSA computer. This means that the system has the capability to allow the OCOA operator to access the data set and enter changes such as percentage data elements and currency fluctuation. The software necessary to provide this capability, however, is not in place at this time.
- The Model 5115-A display stations have a large video screen and a separate keyboard. The CRT video screen can display up to twenty-four, 80 character lines at one time.

¹Information extracted from Vol. I, FORDIMS User's Guide, August 1980.

- The Model 8121 character printer is a low speed printer which the terminal operator can use to produce a hard copy of any data that are displayed on the CRT screen. Thus, after making the changes in the USAMSSA computer work file, the terminal operator can retain a copy for staffing or reference until the USAMSSA input action has been completed.

DAPE-MBA has a Four-Phase System Inc Data IV/95 remote terminal cluster consisting of a:

- Model 9500 Processor
- Model 8115-02 Display Station
- Model 8155 High-speed Printer (450 lines per minute).

The DAPE-MBA equipment performs the same functions as the DACA-OMP IV/50 System; however, it has greater capability. For example, the Model 9500 Processor has 1.5 megabytes of main memory and 300 megabytes in disk storage and more applications, such as wordprocessing and graphics.

5.4 Summary of Impacts

It is expected that the organizational, operational, and developmental impacts of the proposed automation of the PB-22 Budget Exhibit on the ADP support organization (USAMSSA) will be minimal. Modification of positional responsibilities is not foreseen although reorientation of the work of some staff members may be required. It would not appear, on the basis of functions defined in this FD, that there should be a need for additional ADP personnel. It is not anticipated that there will be any changes in the ADP configuration of USAMSSA hardware. Additional requirements for program and data conversion are not known at this time.

5.5 Failure Contingencies

Hardware or software failures of such magnitude, devastation, and duration as to require a fallback to periods of extended manual manipulation and recording procedure probably would occur only as a result of

sabotage or war. If the computer center becomes inoperable under such conditions, Continuity Of Operations Plans (COOP) provide for support of automated systems elsewhere.

5.5.1 Restart

In the event of temporary system failure during processing and execution activity, USAMSSA has the software capability to accommodate rapid restart. An example of this capability is the Automated Planning and Execution (APEX) Control System that resides on the USAMSSA mainframe. In case of system failure APEX allows automatic restart without user intervention or loss of software through its automatic control of the release of job streams.

5.5.2 Backup

"Backup" refers to redundancy available in the event the primary system fails. The primary system files, data bases, and interactive hardware are maintained on disk files. USAMSSA provides backup by daily dumps of system software from disk to magnetic tape. Thus, the loss of critical operational software would be minimal.

5.5.3 Fallback

If the mainframe operating system at USAMSSA fails, the COOP will provide temporary alternative processing activities. As stated in paragraph 3.5, batch processing or manual manipulation, rather than an interactive mode, may be used until the system capability is restored.

5.6 Security

5.6.1 Data Security Measures

Breaches and penetration of data security are matters of key concern at computer centers. Unauthorized disclosure, destruction, or modification/manipulation of data used by the data processing system could threaten the ability of a center to continue operations.

Various security measures will be instituted to protect the security and integrity of data in the Army budget system.

- The system will have security features built into it so that only certain information can be accessed from each terminal.
- Special codes will be required to access data sets, records, or files.
- Specific portions of the data base will be accessed only by those whose job requirements require such access.
- Scope of access will be proportionate to the user's security clearance and job responsibilities.

5.6.2 USAMSSA Data Security

The USAMSSA computer center has installed a data security system called ACF2--The Access Control Facility--which is an extension of the IBM OS/MVS Operating System that provides data security.¹

ACF2 is not a data protection system but rather a system that provides for the controlled sharing of data. An algorithmic methodology, much like a program, is used to determine whether access to a specific data set by an individual user should be allowed.

Because ACF2 determines whether an individual user should be allowed access to a data set, it must be able to associate a user's identity with each job or time-sharing session. Each user has a logon Identification (LOGONID) and each LOGONID has a password associated with it. These passwords are kept in an encrypted format which cannot be reversed. If the user forgets the password, the USAMSSA Security Officer cannot tell the user what it is; he can only change it.

¹Extracted from the ACF2-The Access Control Facility User's Guide, Modified by USAMSSA (18 November 1981), developed by Schrager, Klemens, and Krueger, Inc.

5.7 Assumptions and Constraints

Several assumptions have been made in the development of this FD for defining the system requirements and providing the DACA-OMP with a clear statement of the operational capability to be developed for automation of certain budget activity exhibits. It is assumed that:

- There will be a continuing requirement for the Army to display budget exhibits identifying costs and manpower data applicable to operation of AMHA.
- The FORDIMS P/BS data base will produce the required outputs.
- PPBES data base will provide military personnel cost data.
- The VFDMIS MIS will replace the FORDIMS and will be designed to provide the data now furnished by P/BS.

SECTION 6
COST FACTORS

6.1 Introduction

The purpose of this section is to provide a summary of the cost factors associated with the Automation of the Army Budget Activities for Civilian Personnel. The cost factors shall occur in three system phases:

- System Development
- System Implementation
- System Operation

6.2 System Development Costs

Developmental effort will be required to generate the necessary custom programs for the automation of civilian personnel budget exhibits.

Developmental effort also is required to design screen formats, help function formats, and specify procedures for data base maintenance. In addition, instructions and system documentation must be produced during the development phase.

The required computer services also shall be considered. It is expected that this development effort will require four person-weeks. The skill categories and person-weeks required for this task are:

Senior Analyst/Programmer	1
Junior Programmer	1-1/2
Technical Writer	1
Word Processor Specialists	<u>1/2</u>
Total Weeks	4

The development effort should not exceed one technical person-month.

6.3 System Implementation Costs

The initial implementation costs involve specifying the data base structure; and loading pre-defined tables, screen formats, and application programs. Testing of the operating system and application programs shall be performed during implementation. After software development has finished, functional personnel shall receive approximately four hours of informal training in concept design and hands-on training for manipulation of the CRT and terminal operations. All training shall be accomplished on-site prior to full utilization of the system. No additional personnel will be required to operate the system as existing operational and analytical personnel presently functioning in budget activities for civilian personnel shall be trained to operate the proposed system. Impact of the new system on USAMSSA facilities will be negligible. There are no additional implementation costs anticipated with respect to the operation of user terminals.

6.4 System Operation Costs

The continuing operations-related costs will involve those currently in being for the contractor costs associated with the user terminals already in place. It is recommended that these services continue for the fully automated system.

SECTION 7
SYSTEM DEVELOPMENT PLAN

7.1 Project Work Plan

The purpose of this plan is to provide for the project control necessary for the USAMSSA to design, develop, test, document, and install the software programs and interfaces necessary to satisfy the system requirements outlined in Sections 2, 3, and 4.

The life cycle activities to be considered for the implementation of the PB-22 Budget Exhibit ADS are depicted in the overall System Development Schedule, Figure 7.1. While four person-weeks for completion of this project may appear to be short, many of the events can be accomplished concurrently. Further, the schedule provides only a representative list of events necessary for system development. During design and development of the PB-22 ADS, changes to the schedule and approved requirements may become necessary. In this event, the proponent will notify the USAMSSA as early as practical.

Emphasis is placed on informal in-progress reviews. At the review time, the schedule will be checked and any changes will be identified. The activity during each event will be reviewed to ensure that it will satisfy the requirements for the automation of the PB-22 Budget Exhibit. In the event of a slip in the schedule, or a significant change in the system requirements, both the USAMSSA and the OCOA management will be informed as to the extent and nature of the impact. Where possible, if schedule or requirement changes have little or no impact on the project in terms of manpower or time, they will be incorporated directly in the development effort.

7.2 Definition/Design Phase

The Definition/Design Phase shall be accomplished by the USAMSSA utilizing this Functional Description and any other supporting documentation provided by the OCOA. Work on this phase shall be completed two weeks after initiation of the project.

PB-22 ADS DEVELOPMENT SCHEDULE

[-----]

MILESTONE ACTIVITIES	WEEKS AFTER PROJECT START			
	1	2	3	4
DEFINITION/DESIGN PHASE				
Start Project	<			
Preliminary System Design	<----->			
Preliminary Design Review	<-->			
Detailed System Design	<----->			
Detailed Design Review		<----->		
Design Updates		<----->		
SYSTEM DEVELOPMENT PHASE				
Display Screen Development			<----->	
Coding & Check-out			<----->	
Documentation			<----->	
Testing & Integration				<----->
Training				<----->
Quality Assurance				<----->
MANPOWER RESOURCES				
Senior Analyst/Programmer	1/4	1/4	1/4	1/4
Junior Programmer		1/2	1/2	1/2
Technical Writer			1/2	1/2
Word Processing Specialist			1/4	1/4

Figure 7.1. PB-22 ADS Development Schedule

7.2.1 Preliminary System Design

The USAMSSA shall have three days in which to develop the Preliminary System Design and provide it for the OCOA review.

7.2.2 Preliminary Design Review

The OCOA, in coordination with ODCSPER, shall have two days in which to review the Preliminary Design for accuracy and completeness, ensuring that all aspects necessary to system development have been included. The OCA shall approve all designs, prior to initiation of any coding.

7.2.3. Detailed System Design

Upon completion of the Preliminary System Design, the Detailed System Design shall be developed by the USAMSSA. This detailed design shall be completed and submitted to the OCA for review by Wednesday of the second week of the project.

7.2.4 Detailed Design Review

The OCOA, in coordination with the ODCSPER, shall review the detailed design to ensure the developmental aspects of the design include all capabilities necessary for the system. This review shall be completed two days after receipt of the detailed design.

7.2.5 Design Updates

The USAMSSA shall revise and update the system design based on recommendations provided by the OCOA. The system design updates shall be completed by the end of the second week of the project.

7.3 System Development Phase

The System Development Phase shall be accomplished by the USAMSSA utilizing the final detailed design. Work on all listed events of the Development Phase shall be completed four weeks after initiation of the project.

7.3.1 Display Screen Development

The screens involving menu selection items and data input forms shall be developed during the third week of the project.

7.3.2 Coding and Check-out/Program Modules

The coding of the programs shall begin during the third week of the project, to be completed and checked out by the end of the week.

7.3.3 Documentation and Deliverables

The necessary system documentation shall be developed concurrently with the coding and check-out of the program modules. As a minimum, the documentation will include a program reference and user, operations, and maintenance instructions. Development of the instructions shall be coordinated with the OCOA, completed by the end of the third week of the project, and made available for the Training Event. In addition to systems documentation, deliverables on a time schedule determined by the functional proponent shall include:

- A Functional Proponent Users Manual.
- PB-22 Budget Exhibit Formats.

7.3.4 Testing and Integration

Testing and integration of the program modules shall begin the final (fourth) week of the project in order to check the accuracy and validity for integrating the PB-22 ADS with the existing systems. This phase of development shall be completed by the end of the fourth week.

7.3.5 Training

Operator training shall be incorporated in the System Development Phase and involve informal meetings between the USAMSSA, the ODCSPER, and the OCOA personnel to discuss system operational procedures. This activity shall be accomplished during the fourth week of the project and result in initiation of the operation of the PB-22 ADS.

7.3.6 Quality Assurance Certification

Quality assurance certification involves two tests, i.e., systems engineering and operational acceptance. The completed PB-22 ADS shall be thoroughly tested for quality assurance during the fourth week of the project.

A Systems Engineering Test shall be conducted by the USAMSSA to ensure that the system components operate as a whole. This test will be conducted from a technical aspect.

Testing from a functional point of view will be the responsibility of the OCOA in coordination with ODCSPER. This Operational Acceptance Test will be conducted in an operational environment and will ensure that the system performance is in accordance with the functional requirements.

7.4 Deployment and Operational Phases

As the PB-22 ADS shall be integrated into an operational system, there will be no additional time required for installation and check-out of the system. Any software modifications shall be accomplished on an as required basis using a Data Processing Request (DPR) Form 56.

APPENDIX A
WORK STATEMENT

WORK STATEMENT
FUNCTIONAL DESCRIPTIONS FOR AUTOMATION OF THE ARMY
BUDGET ACTIVITIES FOR CIVILIAN PERSONNEL

INTRODUCTION

The General Research Corporation (GRC) proposes to develop for the Office, Comptroller of the Army the functional descriptions for automation of (1) the Army Management Headquarters Activities (AMHA) PB-22 Budget Exhibit and (2) the Program and Price Growth OP-32 Budget Exhibit. In addition, GRC proposes to develop a third functional description for the interface requirement to update the OP-32 system from FORDIMS P/BS.

The purposes of this effort are to provide:

- The budget system requirements which must be satisfied to serve as a basis for mutual understanding between the user and the developer.
- Information on performance requirements, data sources, and interfaces with existing automated data systems.
- A basis for systems development of procedures to display, access, and update civilian personnel budget data through remote entry devices and computer interface.

APPROACH

The functional description will be developed by analysis of existing manual procedures, determination of specific user requirements, and identification of data elements to be extracted from relevant management systems. The specific tasks to be accomplished are described below.

TASK 1 - BUDGET EXHIBIT FORMATS

The objective of this task is to develop PB-22 and OP-32 Budget Exhibit formats for hard copy and CRT display which provide civilian personnel budget data broken out by categories such as:

- Fiscal year
- Command
- Program element
- Appropriation code
- Compensation area
- End strength
- Work years
- Army Management Headquarters
- Functional Category

The description of the budget exhibits will identify the manner in which the data elements will be displayed, necessary mathematical computations required to translate input data into summary type information, structure of the exhibit formats, and other information necessary to support a data processing request. Work on this task is of critical importance to all following efforts in automating the budget process.

The initial step in the work on this task will be to meet with the COR to determine specific data needs and obtain relevant extant data such as existing documentation of the budget process. In addition, the project staff will meet with other HQDA and USAMSSA staff representatives to define the budget exhibit format and content requirements and ensure development of a viable functional description. Following these initial meetings, GRC will develop and refine the budget exhibits in accordance with DoD Budget Guidance Manual 7110-1-M and in close coordination with the COR and other staff representatives, as necessary. The focus of these efforts will be not to critique current methods, but rather to ensure that the design of the exhibits incorporates the knowledge and experience of the personnel involved in the budget process. In

addition, particular attention will be focused on developing hardcopy formats that are easily understood and compatible with CRT displays.

Work on this task will be completed 2 weeks after contract award and require approximately 2 person-weeks of effort. The output will be a description with appropriate sample exhibits, of the PB-22 and OP-32 Budget Exhibit formats.

TASK 2 - BUDGET DATA SOURCES

The objective of this task is to identify the sources of data for the Army Management Headquarters Activities (AMHA) Program Budget 22.

Work on this task will involve review of the systems that support Army manpower management to identify data sources which could be used for input to the PB-22. The initial review will involve those systems identified by the COR as being particularly useful to the current budget preparation process. In addition, the project staff will endeavor to identify other potential sources of data that exist for allocating, costing, and managing civilians on both an end strength and a work year basis.

This review will involve selective examination of the program control and feedback system to include:

- The Program/Budget Subsystem (P/BS) of the Force Development Integrated Management System (FORDIMS)¹ and input to the Program Budget Guidance (PBG).
- The Civilian Personnel Information System - Model I (CIVPERSINS-I), as prescribed in AR 680-330, which provides feedback on actual characteristics of the civilian work force hired against authorized positions.

¹GRC supported the development of FORDIMS from a functional user aspect and developed the FORDIMS User's Guide, Volume I, Introduction and Program/Budget Subsystem (P/BS).

- The Tables of Distribution and Allowance (TDA) which are normally prepared only for the current, budget, and first program year (Concept Plans are a limited exception). Civilian manpower detail by category, grade, and civilian occupational specialty code is not normally available for the remaining program years ("outyears").¹
- The Army Civilian Personnel System (ACPERS), currently in early stages of development.
- The CSFOR-78 report which currently displays actual and authorized civilian strengths at command, Army Management Structure Code, and civilian identity level (with some limited workload data).
- The Manpower Evaluation and Tracking System (METS) which compares actual and authorized civilian strength.

GRC already has a comprehensive understanding of functional interrelationships among Army mission and workload, civilian manpower requirements determination, documentation of current and future civilian work force characteristics, personnel management policy, external constraints, and life cycle functions. During this project, we will confirm, update, and upgrade our background knowledge with particular emphasis on relevant input data for the PB-22. Our current and extensive library of applicable directives, studies, and other background information will greatly simplify the literature search.

Work on this task will be completed approximately 3 weeks after contract award and require approximately 1 person-week of effort. The output will be a description which identifies the appropriate sources of input data for PB-22 and describes the data elements which can be obtained from these sources.

¹This may change under the Vertical Force Development Management Information System (VFDNIS) (currently under development with GRC support) since documentation details in that system are reflected on a time continuum and remain valid until modified.

TASK 3 - DATA INPUT BY CRT

The objective of this task is to develop procedures to input additional PB-22 and OP-32 cost data via the DACA-OMP CRT and document these procedures by functional descriptions.

Work on this task will commence approximately 2 weeks after contract award and involve close coordination with the COR to review current capabilities and establish future requirements for input of cost data via the CRT. Based on this coordination, GRC will design and develop procedures to input additional cost data which specify:

- The data elements which are to be input
- The format and content of the data elements
- A structure for filing the input data which is compatible with the existing systems

Particular emphasis will be placed on development of procedures which are user friendly and facilitate data entry. The procedures will be documented by the development of the input required for a Data Processing Request (DPR) (DAS Form 56, Appendix B, DA Memo 18-4, dated 18 March 1979) for both the PB-22 and OP-32 systems. This documentation will include:

- Systems title and general description
- System benefits, assumptions, and constraints
- Source data media and formats of input data
- Frequency and timeliness
- Output title and general description
- Output interface constraints, media, and formats
- Description of the proposed system to include:
 - Data element definition and coding structure
 - Data tables
 - Relations between data elements

While it is not practical to scope completely the magnitude of this effort, we estimate that development of these procedures may require approximately 7 person-weeks of effort.

The output will be two functional descriptions of the procedures to input additional cost data via the DACA-OMP CRT:

- The OP-32 functional description will be delivered approximately 5 weeks after contract award.
- The PB-22 functional description will be delivered approximately 7 weeks after contract award.

TASK 4 - OP-32 AND FORDIMS P/BS INTERFACE

The objective of this task is to develop a functional description for the interface requirement to update the OP-32 system (resident at the USAMSSA computer) from FORDIMS P/BS.

GRC is fully aware that the functional description requirements must drive the system design and not vice-versa. This is not to say that existing system design considerations should not intrude in the process of developing the functional description. Such design considerations can exert a very positive influence, when, as in this case, there is another system (FORDIMS P/BS) with which the automated budget process must interface in order to update the OP-32 system.

Work on this task will involve identification of the data elements in the FORDIMS P/BS that will be utilized to update the OP-32 system translation of the data elements into a format acceptable as input for the OP-32 system, and development of the input required for a DPR as described under Task 3. Tentative FORDIMS P/BS data elements which may be used as input to the OP-32 system include:

¹Data element descriptions are in Appendix D, FORDIMS User's Guide, Vol I, Aug 1980.

FORDIMS P/BS DATA ELEMENTS¹

AUCCO	BCOCO	BBECO	AYSCO	FEPER
AMYRC	CASHA	FECMP	CAPER	SVPER
MDAYS	CASCO	SVPAY	OTPER	BCOMP
MYRCO	OTIME	ADSAL	OTPCO	BBENE
OTMYR	OTICO	ADSCO	BEPER	AYSAL

Work on this task is estimated to require approximately 4 person-weeks. The output will be a functional description for the interface requirement that will be delivered approximately 8 weeks after contract award.

COORDINATION

Successful completion of the work will require close and continuing interface with the personnel most knowledgeable about the development and use of the PB-22 and OP-32 Budget Exhibits and supporting systems. GRC intends to facilitate this coordination by almost daily liaison with these personnel to ensure the existing systems are properly described and defined in terms of systems requirements.

All functional descriptions will be developed in coordination with the COR and incorporate Government comments.

PERSONNEL

This research will be conducted by the personnel listed below. Estimated time to be devoted to the study is shown. Their qualifications are briefly described in the subparagraphs below.

	<u>Person hours</u>
Mr. Robert Schroeder	240
Mr. Einar (Bill) Berge	232
Mr. William Bartlett	80

Mr. Schroeder will be project leader.

Mr. Robert L. Schroeder is a former Army Colonel who has extensive experience in manpower and personnel studies and analyses as well as civilian personnel management experience. He is a GRC Senior Analyst with a graduate degree in operations research, was recently project manager for two Army studies involving manpower and personnel management policy analysis and turbulence definition, and was a member of the project team developing a Civilian Personnel Management Module within the FORECAST System. Before joining GRC, Mr. Schroeder was Director, Systems Force Mix at the Army Concepts Analysis Agency. In this capacity, he directed and managed a staff of approximately 50 civilian and military analysts in the conduct of cost and benefit studies. Earlier assignments included management of study efforts requiring functional definition, data collection, analysis, and evaluation of organizational and operational requirements, and Army personnel policy analysis. His extensive background in the Army and in operations research studies makes him eminently qualified for this project.

Mr. Einar (Bill) Berge is a Senior Consultant with unparalleled expertise in the areas of manpower planning and analysis and mobilization manpower planning. He has been a member of several GRC project teams; most notably, the projects to develop the modifications to ELIM-COMPLIP and MOSLS for mobilization planning and to develop a Civilian Personnel Management Module within the FORECAST System.

Mr. Berge, a former Army Colonel with more than 30 years of military service, has extensive experience in analysis of manpower requirements and automated systems design. His analytical experience in these areas will be invaluable in this project.

Mr. William E. Bartlett, Jr. is a GRC Principal Analyst (and Deputy Director, Management Sciences Operations) with extensive experience in manpower management, ADP systems, personnel planning, and mobilization. He is currently serving as manager of the project to develop a Civilian Personnel Management Module within the FORECAST System. He was also a major contributor in the study to determine modifications to ELIM-

COMPLIP and MOSLS for mobilization strength planning and management for enlisted personnel.

A former Army Colonel with more than 4 years of day-to-day involvement with Army personnel matters as a key member of the staff of the Deputy Chief of Staff for Personnel at Department of the Army level, he brings an unparalleled depth and breadth of understanding of Army personnel functions and system development to this project.

APPENDIX B
STATEMENT OF WORK

CONTRACT NO. MDA903-83-M-7399
General Research Corp.

I. SCOPE OF WORK

The contractor shall furnish the necessary personnel, materials, facilities and other services, managing and directing the same as may be required to conduct research to develop Functional Descriptions for Automation of the Army Budget Activities for Civilian Personnel. The work to be performed consists of the following tasks.

a) TASK A - Contractor will develop PB-22 and OP-32 Budget Exhibit formats for hard copy and CRT display which provide civilian personnel budget data broken out by categories.

b) TASK B - Contractor will identify the sources of data for the Army Management Headquarters Activities (AMHA) Program budget 22.

c) TASK C - Contractor will develop procedures to input additional PB-22 and OP-32 cost data via the DACA-OMP CRT and document these procedures by functional descriptions.

d) TASK D - Contractor will develop a functional description for the interface requirements to update the OP-32 System (resident at the USAMSSA computer) from FORLIMS P/BS.

II. REPORTS

(a) During the period of research, the contractor shall submit reports in accordance with the delivery schedule set forth below. The reports shall include the following:

(1) Interim status reports - containing working notes and all papers related to development of functional descriptions.

(2) A written OP-32 functional description to include data processing request ready for submission to USAMSSA.

(3) A written PB-22 functional/description to include data processing request ready for submission to USAMSSA.

(4) A written functional description of P/BS FORLIMS Interface to the OP-32 System to include data processing request ready for submission to USAMSSA.

III. DELIVERY SCHEDULE

<u>REPORTS</u>	<u>QUANTITY</u>	<u>DELIVERY DATE</u>
First Interim Status on OP-32	5 copies	22 Aug 1983
OP-32 Functional Description	5 copies	05 September 1983

CONTRACT NO. MDA903-83-M-7399
General Research Corp.

<u>REPORTS</u>	<u>QUANTITY</u>	<u>DELIVERY DATE</u>
Second Interim Status on PB-22 and P/BS FORDIMS Interface to OP32.	5 copies	19 Sept 1983
PB-22 Functional Description	5 copies	07 Oct 1983
P/BS FORDIMS INTERFACE to the OP-32	5 copies	07 Oct 1983

IV. CONTRACTING OFFICERS REPRESENTATIVE

Mrs. Jean S. Rogers, HQDA (DACA-OMP), Rm 3B666, The Pentagon, Washington, DC 20310: (202) 697-7669, is hereby designated as the Contracting Officer's Representative to

a. Receive for the Government Reports and any other material called for and represent the Contracting Officer in the technical phases of the work. The Contracting Officer's Representative is not authorized to change any of the terms and conditions. Changes in the scope of work shall be made only by the Contracting Officer by properly signed modifications to the delivery order.

b. Certify the Contractor's "need to know" in connection with the contractor's:

(1) requests for information from Government activities,

(2) requests to private Contractors for information developed pursuant to Government contracts,

(3) visits to Government installations and other Government Contractor to obtain information to be used in the performance of this delivery order.

c. Act as the Authorized Government Representative to receive, inspect, and accept the services performed under this purchase order by executing the receiving report(s) (Block 26 & 27 of DD Form 1155 or block 23 of DD Form 250) required by this order as verification that the specified services have been performed. The COR will distribute one (1) copy of the signed receiving reports(s) to Defense supply Service-Washington.

V. PAYMENT

At the time of delivery of Functional Descriptions and Interface called for herein, the contractor shall complete a DD form 250. "Material Inspection and Receiving Report" and submit it along with an invoice in original and four copies to the Contracting Officer's Representative (COR). The COR shall forward same to the designated activity for payment.

VI. Military Security Requirements clause, DAR 7-104.12, dated 1971 APRIL, is applicable.

CONTRACT NO. MDA903-83-M-7399
General Research Corp.

VII. MILITARY SECURITY CLASSIFICATION

Military security requirements in the performance of this contract shall be maintained in accordance with the DD Form 254 which is attached. The highest classification involved in the performance of this contract is secret. This contract document is unclassified.

VIII. CLASSIFIED INFORMATION

The contractor will not use any electrical information processing equipment in his possession for the purpose of processing or transmitting classified information under this contract without the written permission of the Contracting Officer.

IX. DISSEMINATION OF INFORMATION

There shall be no dissemination or publication, except within and between the contractor and any subcontractors, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the COR or of the Contracting Officer.

X. LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

a. Attachments

DD Form 254

APPENDIX C
ABBREVIATIONS AND ACRONYMS

APPENDIX C
ABBREVIATIONS AND ACRONYMS

ABS	Additional Budget Submits
ADSAL	Average Daily Salary
ACT	Activity Group
ACTNO	Action Number
AFP	Annual Funding Program
AMHA	Army Management Headquarters Activities
AMSCO	Army Management Structure Code
APCAT	Appropriation Category
AIF	Army Industrial Fund
AMO	Automation Management Office
AYSAL	Average Yearly Salary
BDFA	Basic Daily Food Allowance
BEAMS	Budget Execution and Appropriation Management System
BBENE	Basic Benefits
BCOMP	Basic Compensation
BEPER	Benefit Percent Factor
BOS	Base Operations
CA	Commercial Activities
COA	Comptroller of the Army
COB	Command Operating Budget
COLA	Cost of Living Allowance
COR	Contracting Officer Representative
C/PGS	Cost/Program Growth System
CPI	Consumer Price Index
CRT	Cathode Ray Tube
CSFOR-78	Manpower Utilization and Requirements Report
DBMS	Data Base Management System
DOD	Department of Defense
DPR	Data Processing Request
EOE	Elements of Expense
FD	Functional Description
FECMP	Former Employee Compensation

ABBREVIATIONS AND ACRONYMS (Cont.)

FEGHI	Federal Employee Group Health Insurance
FEGLI	Federal Employee Group Life Insurance
FEPER	Former Employee Percent Factor
FICA	Federal Insurance Contribution Act
FNDH	Foreign National Direct Hire
FNID	Foreign National Indirect Hire
FNSA	Foreign National Separation Allowance
FORDIMS	Force Development Integrated Management System
FSS	Force Structure Subsystem
FTP	Fulltime Permanent
FYDP	Five Year Defense Program
GFSR	General Functional System Requirement
GS	General Schedule - Civilian Employee
MACOM	Major Army Command
MSN	Mission
MYP	Multiyear Procurement
OC	Object class
OCA	Office of the Comptroller of the Army
O&M	Operations and Maintenance
OMA	Operation and Maintenance, Army
OMAR	Operation and Maintenance, Army Reserve
OMARNG	Operation and Maintenance, Army National Guard
OMB	Office, Management and Budget
OPAGY	Operating Agency
OSD	Office, Secretary of Defense
OTIME	Overtime
OTPER	Overtime Percentage Factor
PBD	Program Budget Decision
PBG	Program Budget Guidance
P/BS	Program/Budget Subsystem
PCD	Program Change Decision
PCS	Permanent Change of Station
PDM	Program Decision Memorandum

ABBREVIATIONS AND ACRONYMS (Cont.)

PE	Program Element
POM	Program Objective Memorandum
PPBES	Planning, Programming, Budgeting, and Execution System
RCOMD	Resource Command
RDTE	Research, Development, Test, and Evaluation
RPMA	Real Property Maintenance, Army
SCR	Systems Change Request
SES	Senior Executive Service
SOW	Statement of Work
STANFINS	Standard Financial Systems
STARCIPS	Standard Army Civilian Payroll System
SVPAY	Severance Pay
TAADS	The Army Authorization Documents System
TDA	Table of Distribution and Allowance
TDY	Temporary Duty
TPT	Temporary Parttime
USAFAC	United States Army Finance and Accounting Center
USAMSSA	United States Army Management System Support Agency
VFDMIS	Vertical Force Development Management Information System

APPENDIX D
ARMY MANAGEMENT STRUCTURE CODES
ARMY MANAGEMENT HEADQUARTERS ACTIVITIES LISTING

APPENDIX D

ARMY MANAGEMENT STRUCTURE CODES ARMY MANAGEMENT HEADQUARTERS ACTIVITIES LISTING

AMHA AMSCO	PECOD	UICOD	TITLE	FNCAT	RCOMD	
*191098000	22498A	WATMAA	HQ EUSA/EUSA AUG	D	7801	*HISTORY AMSCO
3731L0000	59898A	WOZUAA	MGT HQ (ARNG)	B	1301	
3741L0000	59998A	WOZUAA	NGB	B	1301	*HISTORY AMSCO
920960J00	72898A	WOGWAA	HQ DARCOM	D	6A01	
930960000	85798A	W3YTAA	HQ TRADOC	D	5701	
940960000	92398A	WOZUAA	GCSA	B	1301	
20239610000	22398A	WOANAA	HQ USAREUR/ 7 AR HQ	D	8901	
20239630000	22398A	WOBFAA	SETAF	F	8901	
20239631000	22398A	WOBFAA	SETAF	F	8901	
20239632000	22398A	WH6VAA	SETAF	F	8901	
20249611000	22498A	WOATAA	HQ USARJ/IX CORPS	D	7701	
20249612000	22498A	WAUBAA	HQ USARJ/IX CORPS	D	7701	
20249621000	22498A	WATMAA	HQ EUSA//EUSA AUG	D	7801	
20249622000	22498A	WATMAA	HQ EUSA/EUSA AUG	D	7801	
20249630000	22498A	W32FAA	WESTCOM	D	8301	
20269600000	22698A	W3Y8AA	HQ FORSCOM	D	7601	
20819610000	28198A	W3WCAA	CAA	C	3226	

AMMA AMSCO	PECOD	UICOD	TITLE	FNCAT	RECOMD
31329610000	33298A	W241AA	USACCSA	C	1307 *HISTORY AMSCO
31329620000	33298A	W3YBAA	HQ FORSCOM	D	7601 *HISTORY AMSCO
31329630000	33298A	W31LAA	WWMCCS DATA PRO CTR	E	8901 *HISTORY AMSCO
31339640000	33398A	W02UAA	WIS MGT OFFICE HQDA	B	1301
36119610000	31198A	W00YAA	HQ INSCOM	D	2501
36119621000	31198A	W3GNAA	INSCOM-EUR	E	2501
36119623000	31198A	W4DKAA	SSA-INSCOM	E	2501
36139600000	31398A	W00YAA	HQ INSCOM	D	2501 *HISTORY AMSCO
36139610000	31398A	W00YAA	HQ INSCOM	D	2501
36139621000	31398A	W4DKAA	SSA-INSCOM	E	2501
36139622000	31398A	W318AA	SSA-HQ SPT DETACHMEN	E	2501
36529600000	35298A	W00YAA	HQ INSCOM	D	2501 *HISTORY AMSCO
36529610000	35298A	W00YAA	HQ INSCOM.	D	2501
36529621000	35298A	W4DKAA	SSA-INSCOM	E	2501
36529622000	35298A	W318AA	SSA-HQ SPT DETACHMEN	E	2501
36539600000	35398A	W00YAA	HQ INSCOM	D	2501 *HISTORY AMSLO
36539610000	35398A	W00YAA	HQ INSCOM	D	2501

AMHA AMSCO	PECOD	UICOD	TITLE	FNCAT	RCOMD
33339621000	33396A	W4DKAA	INSCOM SSA AUDIO/VIS	E	2501
38339622000	35395A	W318AA	INSCOM SSA HQ SPT	E	2501
39329810000	33298A	W241AA	USACCSA	C	1307
39329820000	33296A	W3Y8AA	HQ FORSCOM	D	7601
39329830000	33298A	W31LAA	WMCCS DATA PRO CTR	E	8901
39339840000	33398A	W0ZUAA	WIS MGT OFFICE HODA	B	1301
39399891000	33998A	W0GTAA	HQ ACC	D	A001
39399892110	33998A	W086AA	5TH SIG-EUR	F	A001
39399892120	33996A	W08699	5TH SIG-EUR	F	A001
39399892200	33998A	W4CBAA	ACC WESTERN CMD	F	A001
39399892310	33998A	W04UAA	7TH SIG	F	A001
39399892320	33998A	W04U99	7TH SIG	F	A001
39399893000	33998A	W00YAA	HQ INSCOM	D	2501
40909800000	92398A	W0JVAA	HQ USA CORPS OF ENGI	D	0801
46335072510	43198A	W09FAA	HQ PTMC	D	3501
53999810000	59998A	W0ZUAA	CCSA	B	1301
53999821000	59998A	W0GXAA	HQ 1ST ARMY	F	7601

AMHA AMSCO	PECOD	UICOD	TITLE	FNCAT	RCOMD
53999822000	59998A	W3NQAA	2ND ARMY	F	7601
53999824000	59998A	W0G1AA	HQ, 4TH ARMY	F	7601
53999825000	59998A	W0G0AA	HQ 5TH ARMY	F	7601
53999826000	59998A	W0G2AA	HQ 6TH ARMY	F	7601
665898M0300	65898A	W03JAA	HQ MED R&D CMD	C	0601
665898M0400	65898A	W0JVAA	HQ USA CORPS OF ENGI	D	0801
665898M6100	65898A	W0GWAA	HQ DARCOM	D	6A01
665898M6200	65898A	W357AA	ARRADCOM	F	6A01
665898M6300	65898A	W386AA	AVRADCOM	F	6A01
665898M6400	65898A	W4A4AA	CORADCOM	F	6A01
665898M6500	65898A	W39KAA	ENADCOM	F	6A01
665898M6700	65898A	W4GGAA	TACOM	F	6A01
665898M6980	65098A	W0H9AA	MICOM	F	6A01
665898M6980	65098A	W357AA	ARRADCOM	F	6A01
72289811000	72898A	W0GWAA	HQ DARCOM	D	6A01
72289812100	72898A	W0H5AA	SVC SPT ACTV	E	6A01
72289812200	72898A	W0JXAA	PERS SPT ACTV	E	6A01

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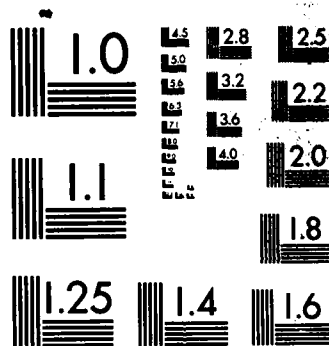
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AMHA AMSC0	PECOC	UICOD	TITLE	FNCAT	RCOND
72289812300	72898A	WOKZAA	FIELD SFTY ACTV	E	6A01
72289812400	728982	W0V4AA	INSTALLA & SVC ACTV	E	6A01
72289812500	72898A	W2EWAA	SURETY ACTV	E	6A01
72289812600	72898A	W26JAA	IG ACTV	E	6A01
72289812700	72898A	W22DAA	SCTY ACTV	E	6A01
72289821000	72898A	W39HAA	ARRCOM	F	6A01
72289823000	72898A	W4A5AA	CERCOM	F	6A01
72289825000	72898A	W46GAA	TACOM	F	6A01
72289827000	72898A	W385AA	TSARCOM	F	6A01
72289828000	72898A	W39QAA	DESCOM	F	6A01
72289830000	72898A	W0JVAA	HQ USA CORPS OF ENGI	D	0801
7E317224962	72098A	W0H9AA	HICOM	F	6A01
81579800000	85798A	W3YTAA	HQ TRADOC	D	5701
84779810000	87798A	W3VYAA	HQ HSC	D	7401
84779820000	87798A	W05JAA	MED MAT AGCY	C	0601
84779830000	87798A	W03JAA	HQ MED R&D CMD	C	0601
87179830000	81798A	W060AA	HQ USAREC	D	3801

AMHA AMSCO	PLCOD	UICOD	TITLE	ENCAT	RCORD
95129810000	91298A	W00EAA	OSA	A	2201
95129820000	91298A	W06VAA	HQ FOW	D	4001
95129831000	91298A	W06WAA	HQ DARCOM	D	6A01
95129832000	91298A	W39HAA	ARRCOM	F	6A01
95129833000	91298A	W386AA	AVRADCOM	F	6A01
95129834000	91298A	W4A5AA	CERCOM	F	6A01
95129835000	91298A	W46GAA	TACOM	F	6A01
95129836000	91298A	W385AA	TSARCOM	F	6A01
95129841000	91298A	W06TAA	HQ ACC	D	A001
95129842000	91298A	W686AA	5TH SIG-EUR	F	A001
95129850000	91298A	W3YTAA	HQ TRADOC	D	5701
95129861000	91298A	W3YBAA	HQ FORSCOM	D	7601
95129862000	91298A	W06XAA	HQ 1ST ARMY	F	7601
95129863000	91298A	W060AA	HQ 5TH ARMY	F	7601
95129864000	91298A	W062AA	HQ 6TH ARMY	F	7601
95129871000	91298A	W0ANAA	HQ USAREUR/7 AR HQ	D	8901
95129873000	91298A	W08FAA	SETAF	F	8901

AMHA AMSCO	PECOD	UICOD	TITLE	FNCAT	RCOND
95129830000	91298A	WOATAA	HQ USARJ/IX CORPS	D	7701
95129890000	91298A	WATMAA	HQ EUSA/EUSA AUG	D	7801
951298A0000	91298A	W32FAA	WESTCOM	D	8301
951298B0000	91298A	W3VYAA	HQ HSC	D	7401
95239810000	92398A	W0GEAA	OSA	A	2201
95239820000	92398A	W0ZUAA	OCSA	B	1301
95249810000	92498A	W0GVAA	HQ MDW	D	4001
95249820000	92498A	W3YYAA	SSA-MDW	E	4001
95249831000	92498A	W1SEAA	USARSSA	C	7303
95249832000	92498A	W31XAA	USA INTEL OPNS DET	C	1202
95249833000	92498A	W0LAAA	USAREDISA	C	7301
95249834000	92498A	W3XYAA	TAGCEN	C	1101
95249841000	92498A	W3X7AA	GO MESS	J	2201
95259800000	92598A	W3KPAA	HQ CIDC	D	2101
95279800000	92798A	W0JVAA	HQ USA CORPS OF ENGI	D	0801
11111111111					1111

APPENDIX E

PB-22 BUDGET EXHIBIT EXAMPLE

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Mil		Civilian		Mil		Civilian	
	End	Str	End	MY	End	Str	End	MY
1. Army Management HQ								
a. Departmental								
Sum of OSA & Army Staff including DS lines	2209	2927	2872	139555	2060	3007	2919	147317
				138568 } Adds to line above				146225
				987 }				1092
Sum of DS lines of OSA & Army Staff	(457)	(782)	(741)	(43710) } Adds to line above	(482)	(811)	(796)	(45772)
				(43710) } (-)				(45772)
				(-)				(-)
OSA - (OMA)	129	295	258	34665 } Adds to line above	113	249	247	35548
Dir				34661 } 4				35544
Reimb				4 }				4
DS - (OMA) 1/	19	-	-	-	18	-	-	-
Army Staff 3/	1623	1850	1873	61180 } Adds to line above	1465	1947	1876	65997
Dir				60197 } 983				64909
Reimb				983 }				1088
OMA	1510	1618	1633	53691 } Adds to line above	1362	1731	1665	58629
Dir				52708 } 983				57541
Reimb				983 }				1088
OMAR	34	52	51	2041 } Adds to line above	30	57	56	1575
Dir				2041 }				1575
Reimb				- }				-

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL					FISCAL YEAR 1983 ESTIMATE				
	Mil		Civilian			Mil		Civilian		
	End	Str	End	Str	Oblig	End	Str	End	Str	Oblig
OMARNG										
Dir	69	172	181	5174	5174	63	151	148	5470	5470
Reimb										
MAP										
Dir	10	8	8	274	274	10	8	7	323	323
Reimb										
DS 1/ 3/										
Dir	438	782	741	43710	43710	464	811	796	45772	45772
Reimb										
OMA										
Dir	380	657	635	39945	39945	403	682	669	42233	42233
Reimb										
RD&E										
Dir	58	125	106	3765	3765	61	129	127	3539	3539
Reimb										
b. Major Commands										
Dir	3029	7005	6769	270798	239210	2892	6990	6833	286761	250075
Reimb				31588					36686	
(SSA) 2/										
Dir	(127)	(643)	(642)	(23437)	(22137)	(127)	(608)	(599)	(24364)	(22073)
Reimb				(1300)					(2291)	
Total of all CHD lines, including (SSA), under Para 1b										
Total of all CHD SSA lines										

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Civilian				Civilian			
	End	Str	MY	Oblig	End	Str	MY	Oblig
USA COE								
Dir	49	372	343	10636	19	281	281	13113
Reimb				10411				12791
				225				322
OMA	49	342	315	10077	19	271	271	12540
Dir				9852				12218
Reimb				225				322
RDTEE	-	30	28	559	-	10	10	573
Dir				559				573
Reimb				-				-
DARCOM 3/	204	1574	1481	72020	203	1663	1631	80572
Dir				63851				69913
Reimb				8169				10659
OMA	200	1509	1348	65717	199	1593	1561	73490
Dir				57548				62831
Reimb				8169				10659
RDTEE	4	65	133	6303	4	69	69	7061
Dir				6303				7061
Reimb				-				-
MAP	-	-	-	-	-	1	1	21
Dir				-				21
Reimb				-				-

USA COE
Dir
Reimb

Adds to
COE total

OMA
Dir
Reimb

RDTEE
Dir
Reimb

DARCOM 3/
Dir
Reimb

Adds to
DARCOM total

OMA
Dir
Reimb

RDTEE
Dir
Reimb

MAP
Dir
Reimb

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL					FISCAL YEAR 1983 ESTIMATE				
	Mil End	Civilian		MY	Oblig	Mil End	Civilian		MY	Oblig
		Str	End				Str	End		
Adds to CMD line		67	84	76	2963 2883 80	86	91	78	2958 2912 46	
	OMA Dir Reimb									
	OMAR Dir Reimb				459 459 -				254 254 -	
Not part of CMD total--included in (SSA) total at lb	SSA (OMA) 2/ Dir Reimb	25	21	18	416 416 -	5	18	21	515 515 -	
	ACC 3/ Dir Reimb	128	629	638	23563 23464 99	118	654	628	26736 26637 99	
	OMA Dir Reimb	128	629	638	23563 23464 99	118	654	628	28475 28376 99	
Total of OMA & MAP listed below	TRADOC 3/ Dir Reimb	607	834	823	31589 31135 454	621	905	870	30745 30366 379	
Adds to TRADOC CMD total	OMA Dir Reimb	607	834	823	32043 31589 454	621	904	869	30724 30345 379	
	MAP Dir Reimb	-	-	-	-	-	1	1	21 21 -	

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Mil		Civilian		Mil		Civilian	
	End	Str	End	Oblig	End	Str	End	Oblig
FORECOM 3/ Dir Reimb	812	1148	1102	44976 44857 119	725	1104	1082	45141 44889 252
ONA Dir Reimb	812	1148	1102	44976 44857 119	725	1104	1082	45141 44889 252
CIDC 3/ Dir Reimb	97	64	65	2079 2079 -	118	69	66	2225 2194 31
ONA Dir Reimb	97	64	65	2079 2079 -	118	69	66	2225 2194 31
MTMC 3/ Dir Reimb	65	767	704	21077 21077 -	67	719	714	22250 22250 -
AIF Dir Reimb	65	767	703	21056 21056 -	67	718	713	22233 22233 -
IDH Dir Reimb	-	-	1	21 21 -	-	1	1	17 - 17

Adds to
MTMC CMD
line

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL					FISCAL YEAR 1983 ESTIMATE				
	Civilian		Military			Civilian		Military		
	End	Str	MY	Oblig		End	Str	MY	Oblig	
HQ USAREC 3/ Dir Reimb	379	255	261	15508		328	256	256	16510	16393 117
OMA Dir Reimb	379	255	261	15508		328	256	256	16510	16393 117
c. CONUS Armies 3/ Dir Reimb	695	785	775	23226		675	815	781	27680	27676 4
OMAR Dir Reimb	691	773	764	22921		675	803	769	27330	27330
OMA Dir Reimb	4	12	11	305		-	12	12	350	346 4
First Army Dir Reimb	265	283	282	8365		255	305	292	9687	9687
OMA Dir Reimb	263	279	278	8254		255	301	288	9570	9570
Total of OMA & OMAR										
Adds to OMA for First Army total										

Total of Army
totals listed below

Total of OMA
& OMAR

Adds to OMA
for First Army
total

EXHIBIT PB-22

(Dollars in Thousands, Strengths in Whole Numbers)

[illegible]

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Civilian		MY	Oblig	Civilian		MY	Oblig
	Mil End Str	End Str			Mil End Str	End Str		
d. <u>Mid-Mgmt Cmts 3/</u>								
Dir	230	2456	2558	89439	249	2414	2398	98674
Reimb				61488				68061
				27951				30613
<u>ARRCON</u>	27	432	442	14767	33	457	434	18840
Dir				14544				16555
Reimb				223				2285
<u>OMA</u>	27	432	442	14767	33	457	434	18840
Dir				14544				16555
Reimb				223				2285
<u>ARRADCOM</u>	23	368	304	8890	23	306	306	8831
Dir				-				-
Reimb				8890				8831
<u>AIF</u>	23	368	304	8890	23	306	306	8831
Dir				-				-
Reimb				8890				8831
<u>AVRADCOM</u>	7	87	130	2836	7	86	84	3021
Dir				2836				3021
Reimb				-				-
<u>RDTS</u>	7	86	130	2836	7	86	84	3021
Dir				2836				3021
Reimb				-				-

Total of all
CMD lines
listed below

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL					FISCAL YEAR 1983 ESTIMATE				
	Mil		Civilian			Mil		Civilian		
	End	Str	MY	Oblig		End	Str	MY	Oblig	
CERCOM	25	274	234	6104		30	158	149	6606	
Dir				5409					5921	
Reimb				695					685	
OMA	25	274	234	6104		30	158	149	6606	
Dir				5409					5921	
Reimb				695					685	
CORADCOM	17	49	67	4792		19	108	106	5195	
Dir				4792					5195	
Reimb				-					-	
EDTSE	17	49	67	4792		19	108	106	5195	
Dir				4792					5195	
Reimb				-					-	
DESCOM	17	96	79	4206		17	110	110	4288	
Dir				3852					3921	
Reimb				354					367	
OMA	17	96	79	4206		17	110	110	4288	
Dir				3852					3921	
Reimb				354					367	
ERADCOM	17	118	96	5182		16	132	137	5204	
Dir				5182					5204	
Reimb				-					-	

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Civilian		Mil		Civilian		Mil	
	End	Str	End	Oblig	End	Str	End	Oblig
RDTS&E	17	118	96	5182	16	132	137	5204
Dir				5182				5204
Reimb				-				-
MICOM	27	332	372	16665	31	329	347	15224
Dir				-				-
Reimb				16665				15224
AIF	27	332	372	16665	31	329	347	15224
Dir				-				-
Reimb				16665				15224
TACOM	36	404	471	16010	37	372	388	20763
Dir				15313				19076
Reimb				697				1687
ONA	36	331	362	10578	37	344	352	12807
Dir				9881				11120
Reimb				697				1687
RDTS&E	-	73	109	5432	-	28	36	7956
Dir				5432				7956
Reimb				-				-
TSARCON	34	296	363	9987	36	356	337	10702
Dir				9560				9168
Reimb				427				1534
Adds to TACOM total								

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Mil End	Civilian		Oblig	Mil End	Civilian		Oblig
		Str	MY			Str	MY	
OMA		34	296	363		36	356	337
Dir				9987				10702
Reimb				9560				9168
				427				1534
e. MACOMs (O'Seas)		1645	1308	1327		1551	1384	1357
Dir				54139				66359
Reimb				53972				65946
				167				413
SSA 2/		(67)	(13)	(13)		(66)	(15)	(15)
Dir				(1659)				(2083)
Reimb				(-)				(-)
USAREUR 3/		775	544	565		753	604	582
Dir				25089				31187
Reimb				24932				30979
				157				208
OMA		775	462	487		753	507	484
Dir				22775				29359
Reimb				22671				29216
				104				143
IDH		-	82	78		-	97	98
Dir				2314				1828
Reimb				2261				1763
				53				65
SSA		67	13	13		66	15	15
Dir				1659				2083
Reimb				1659				-
Not included in USAREUR total								
--included in								
SSA total at le								

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Civilian		Military		Civilian		Military	
	End	Str	End	Oblig	End	Str	End	Oblig
USARJ/IX CORPS 3/ Dir	489	314	305	10436	421	313	313	14939
Reimb				10436				14881
OMA								58
Dir	489	314	305	10436	421	313	313	14939
Reimb				10436				14881
USARJ/IX CORPS 3/ Dir	167	227	231	8472	158	232	232	8599
Reimb				8472				8526
OMA								73
Dir	167	150	156	6438	158	155	155	7434
Reimb				6438				7399
IDM								35
Dir	-	77	75	2034	-	77	77	1165
Reimb				2034				1127
OMA								38
Dir	167	210	213	8483	153	220	215	9551
Reimb				8473				9477
WESTCOM 3/ Dir				10				74
Reimb								
OMA								
Dir	167	210	213	8483	153	220	215	9551
Reimb				8473				9477
				10				74

Adds to USARJ/
IX Corps total

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL					FISCAL YEAR 1983 ESTIMATE				
	Mil	Civilian		MY	Oblig	Mil	Civilian		MY	Oblig
		End	Str				End	Str		
f. Sub-MACOMs (CONUS)	111	197	232	8230	7612	117	215	213	8256	7520
Dir				618					736	
Reimb										
7th Sig Cnd (DCS) 3/	111	197	232	8230	7612	117	215	213	8256	7520
Dir				618					736	
Reimb										
g. Sub-MACOMs (O'Seas)	417	250	237	8636	8635	393	263	260	11867	11551
Dir				1					316	
Reimb										
SETAF	177	84	83	3091	3091	153	88	88	5224	5202
Dir									22	
Reimb										
OMA	177	84	83	3091	3091	153	88	88	5224	5202
Dir									22	
Reimb										

Only CMD in
Sub-MACOMs
(CONUS) line

Only CMD in
Sub-MACOMs
(O'Seas) line

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Mil		Civilian		Mil		Civilian	
	End	Str	MY	Oblig	End	Str	MY	Oblig
5th Sig Cnd	232	147	136	4658	233	157	154	5791
Dir				4658				5538
Reimb				-				253
OMA	232	98	88	3491	233	140	138	5572
Dir				3491				5321
Reimb				-				251
IDM	-	49	48	1167	-	17	16	219
Dir				1167				217
Reimb				-				2
ACC - WESTCOM	8	19	18	887	7	18	18	852
Dir				886				811
Reimb				1				41
Total Army Mgt. Hqs 3/	8336	14928	14770	594023	7937	15088	14761	646914
Dir				532711				577054
Reimb				61312				69860
Total SSA/DS	(651)	(1438)	(1396)	(68806)	(675)	(1434)	(1410)	(72219)
Dir				(67506)				(69928)
Reimb				(1300)				(2291)
MPA				215040				220244

Adds to
5th Sig
Cnd total

Total of lines
la, lb, lc, ld,
le, lf, and lg

Total of SSA
lines in la,
lb, and lc

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

- 1/ DS - Departmental Support
2/ SSA - Staff Support Activity
3/ Justification for increase between FY 83 Col PB-22 Exhibit, FY 83 Pres Budget, and FY 83 Col PB-22 Exhibit, FY 84 Pres Budget.

Command	Mil/Civ	Remarks
Army Staff	-80/+86	(1) Civilian Substitution (2) Implementation of manpower survey (3) Transfer of new functions
DS-Army Staff	-/+51	Purification of functions. Transfer from non-AMHA to AMHA (HQ USA Medical R&D Cad).
DARCOM	-7/+370	(1) Reorganization of HQ DARCOM (+350) approved in concept by Chief of Staff, Army, May 81, without increase to the total AMHA ceiling. To accomplish this, Mid-Mgt Commands (AMHA) were decreased. (2) New functions
SSA-DARCOM	-1/-8	Transferred to HQ DARCOM for reorganization
INSCOM	-47/-43	Transfer of spaces to SSA-INSCOM
SSA-INSCOM	+44/+51	(1) Transfer from HQ INSCOM (2) Civilian Substitution
MDW	+16/+3	Transfer of new functions to HQ MDW
HSC	-5/+4	Civilian Substitution
ACC	-1/+5	(1) Civilian Substitution (2) Transfer of new functions

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

TRADOC	-37/+64	(1) Civilian Substitution (2) Transfer of new functions
FORSCOM	-32/+42	(1) Civilian Substitution (2) Transfer of new functions
CIDC	-5/+5	Civilian Substitution
MTMC	-/+11	Realignment of Transportation Traffic-Mgt functions
HQ USAREC	-4/-3	(1) Civilian Substitution (2) Transfer of new functions
CONUS Armies	-30/+37	(1) Civilian Substitution (2) Transfer of new functions
Mid-Mgt Oads	-14/-338	(1) Spaces transferred to HQ DARCOM to implement reorganization. (2) Civilian Substitution
USAREUR	-16/+41	(1) Civilian Substitution (2) Transfers of functions (Internal Review) to HQ - also to ORSA cell.
ACC-WESTCOM	-/-1	Transfer of spaces to non-AMHA
SETAF	-/+1	Transfer of new functions
USARIGHT	+6/-	Transfer of new functions
USARJ	+1/+1	Transfer of new functions
WESTCOM	+ 8/+14	(1) Implementation of manpower survey (2) Transfer of new functions to HQ

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

5th Sig Cnd	+1/+1	New functions transferred to AMHA
7th Sig Cnd	-31/-38	To correct baseline for management functions
Total Increases/ Decreases	-234/+356	

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

2. Unified Cmd/Specified

	FISCAL YEAR 1982 ACTUAL					FISCAL YEAR 1983 ESTIMATE				
	Mil		Civilian			Mil		Civilian		
	End	Str	End	Str	MY	End	Str	End	Str	MY
<u>HQ LANTCOM</u>	43	-	-	-	-	44	-	-	-	-
<u>US Forces Azores</u>	1	-	-	-	-	1	-	-	-	-
<u>Iceland Def Force</u>	2	-	-	-	-	2	-	-	-	-
<u>Antilles Def Force</u>	1	-	-	-	-	1	-	-	-	-
<u>HQ EUCOM</u>	211	107	117	6610	6502	162	115	112	8221	8202
<u>Dir</u>					108				19	
<u>Reimb</u>										
<u>HQ PACOM</u>	184	-	-	-	-	180	-	-	-	-
<u>HQ USARJ</u>	23	-	-	-	-	23	-	-	-	-
<u>HQ SOUTHCOM</u>	59	27	30	2352	2011	79	27	27	1849	1844
<u>Dir</u>					341				5	
<u>Reimb</u>										
<u>HQ REDCOM</u>	188	-	-	-	-	157	-	-	-	-
<u>TOTAL</u>	712	134	147	8962	8513	649	142	139	10070	10046
<u>Dir</u>					449				24	
<u>Reimb</u>										
<u>MPA</u>					18282				18392	

Adds to
TOTAL line
below

EXHIBIT PB-22

DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL				FISCAL YEAR 1983 ESTIMATE			
	Mil		Civilian		Mil		Civilian	
	End	Str	End	MY	End	Str	End	MY
3. <u>Interntl Mil Hqs</u>								
<u>SACLANT</u>	11	-	-	-	11	-	-	-
<u>SHAPE</u>	692	49	48	1792	691	55	54	2326
Dir				1416				1918
Reimb				376				408
<u>IBERLANT</u>	8	-	-	-	8	-	-	-
Dir								
Reimb								
<u>Intl Mil Actvs</u>	49	49	48	1535	49	49	48	1794
Dir				1216				1462
Reimb				319				1038
<u>NATO Intel Staff</u>	1	12	26	954	1	26	26	1038
Dir				789				858
Reimb				165				180
<u>Land Southeast</u>	310	-	-	-	310	-	-	-
Dir								
Reimb								
<u>HQ NORAD/CONRAD</u>	103	-	-	-	103	-	-	-
<u>HQ USFK/EUSA</u>	227	97	97	5755	227	102	104	9795
Dir				5293				9045
Reimb				462				750

Adds to
total on
next page

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DEPARTMENT OF THE ARMY
HEADQUARTERS OPERATION AND ADMINISTRATION
(Dollars in Thousands, Strengths in Whole Numbers)

	FISCAL YEAR 1982 ACTUAL					FISCAL YEAR 1983 ESTIMATE				
	Mil		Civilian			Mil		Civilian		
	End	Str	End	MY	Oblig	End	Str	End	MY	Oblig
AF SOUTH	305	-	-	-	-	305	-	-	-	-
Dir										
Reimb										
AF NORTH	46	-	-	-	-	46	-	-	-	-
Dir										
Reimb										
CENTO	8	-	-	-	-	8	-	-	-	-
NOTHERN ARMY GP EL	2	-	-	-	-	2	-	-	-	-
TOTAL	1762	207	219	10036	1761	232	232	15133		
Dir				8714				13463		
Reimb				1322				1670		
MPA				37675				39339		

Adds to
TOTAL below

END

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